





1502

S. H.





Maria O'Brien
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P R I N T E D A N D S O L D B Y R O B E R T A N D A N D R E W F O U L I S

M D C C L I I. 1752

TO THE MUCH ESTEEMED

M^R JOHN LOCKE.

HONOURED SIR,

I SEND you this imperfect draught of your excellent *Essay* concerning *Human Understanding*; which, I must confess, falls as much short of the Perfection, as it does of the length of the original. Nevertheless, as I lately intimated to you (and you were pleased to think, that what I propos'd in reference to this Design, would not be wholly lost Labour) I am not without Hopes, that it may in this contracted *Form*, prove in some Measure serviceable to that noble End, which you have so successfully aimed at in it, viz. *The Advancement of Real and useful Knowledge*. The Inducement which moved me to think of abridging it, was a Consideration purely extrinsical to the Work itself; and in effect no other than this; that it would be better suited to the Ease and Convenience of some sort of Readers, when reduced into this narrow Compass. In order to this, I thought the *First Book*, which is employed in refuting the common Opinion of *Innate Notions* and *Ideas*, might be best spared in this Abridg-

DEDICATION.

ment; especially, since the Reader may be convinced by what he shall find here, that such a Supposition is at least needless, in regard he may attain to all the Knowledge he has, or finds himself capable of, without the help of any such *Innate Ideas*. Besides this, I have retrench'd most of the larger Explanations; and some useful Hints, and instructive Theories, I have wholly omitted; not because they are less considerable in themselves, but because they seem'd not so necessary to be insisted on in this *Abridgment*, considered as a previous Instrument, and preparatory Help, to guide and conduct the Mind in its *Search after Truth and Knowledge*. I did particularly pass by that accurate Discourse, concerning the Freedom and Determination of the *Will*, contained in *Cap. 21. L. 2.* because I found it too long to be insert'd here at large, and too weighty and momentous to be but slightly and imperfectly represented. This, I hope, will prove no prejudice to the *Essay* it self, since none, I presume, will think it reasonable to form a Judgment of the whole Work from this Abridgment of it: and I perswade my self, that few *Readers* will be content with

DEDICATION.

this *Epitome*, who can conveniently furnish themselves with the *Essay* at large. However, I am apt to think, that this alone will serve to make the Way to Knowledge somewhat more plain and easie; and afford such Helps for the Improvement of Reason, as are perhaps in vain sought after in those Books, which profess to teach the *Art of Reasoning*. But nevertheless, whether you shall think fit to let it come abroad under the Disadvantages that attend it in this *Form*, I must leave you to judge. I shall only add, that I think my own Pains abundantly recompenc'd by the agreeable, as well as instructive Entertainment, which this nearer View, and closer Inspection into your *Essay*, afforded me: and I am not a little pleased, that it has given me this Opportunity of expressing the just Value and Esteem I have for it, as well as the Honour and Respect I have for its Author. I am,

Honoured SIR,

Oxon. Ap. 17,
1695.

Your very humble,
and obliged Servant,

JOHN WYNNE.

THE

INTRODUCTION.

1. **S**INCE it is the *Understanding* that sets man above the rest of sensible beings, and gives him all the advantage and dominion which he has over them; it is certainly a subject, even for its nobleness, worth the enquiring into.

2. My purpose therefore is to enquire into the *Original, Certainty, and Extent* of human knowledge; together with the grounds and degrees of *Belief, Opinion, and Assent*, which I shall do in the following method:

3. *First*, I shall enquire into the *Original* of those *Ideas* or notions, which a man observes, and is conscious to himself he has in his mind, and the *Ways* whereby the understanding comes to be furnished with them.

Secondly, what *Knowledge* the understanding hath by those ideas; and the certainty, evidence, and extent of it.

Thirdly, I shall make some enquiry into the nature and grounds of *Faith* and *Opinion*.

4. If by this enquiry into the nature of the understanding, I can discover the powers thereof, *how far* they reach, and where they fail us, it may be of use to prevail with the busie mind of man

to be more cautious in meddling with things exceeding its comprehension, to stop when it is at the utmost extent of its tether, and to sit down in a quiet ignorance of those things, which upon examination are found to be beyond the reach of our capacities. We should not then perhaps be so forward out of an affectation of *Universal Knowledge*, to perplex our selves with disputes about things to which our understandings are not suited; and of which we cannot frame in our minds any clear or distinct perceptions, or whereof (as it has perhaps too often happened) we have not any notions at all: but should learn to content our selves with what is attainable by us in this state.

5. For though the *Comprehension* of our understanding comes exceeding short of the vast extent of things; yet we shall have cause enough to magnifie the bountiful *Author* of our being, for that portion and degree of knowledge he has bestowed on us so far above all the rest of the Inhabitants of this our mansion. Men have reason to be well satisfied with what God hath thought fit for them, since he has given them (as St. Peter says, Πάντα πρὸς ζωὴν καὶ εὐσέβειαν) whatsoever is necessary for the conveniencies of *Life*, and information of *Virtue*; and has put within the reach of their discovery, the comfortable provision for this life, and the way that leads to a better. How short soever their knowledge may come of an universal,

or perfect comprehension of whatsoever is, it yet secures their great concerns, that they have light enough to lead them to the knowledge of their *Maker*, and the sight of their own *duties*. Men may find matter sufficient to busie their heads, and employ their hands with variety, delight, and satisfaction; if they will not boldly quarrel with their own constitution, and throw away the blessings their hands are filled with, because they are not big enough to grasp every thing. We shall not have much reason to complain of the narrowness of our minds, if we will but employ them about what may be of use to us; for of that they are very capable: and it will be an unpardonable, as well as childish peevishness, if we undervalue the advantages of our knowledge, and neglect to improve it to the ends for which it was given us, because there are some things that are set out of the reach of it. It will be no excuse to an idle and untoward servant, who would not attend his business by candle-light, to plead that he had not broad sunshine. The candle that is set up in us, shines bright enough for all our purposes. The discoveries we can make with this, ought to satisfy us. And we shall then use our understandings right, when we entertain all objects in that way and proportion, that they are suited to our faculties; and upon those grounds they are capable of being proposed to us; and not peremptorily or intemperately require

demonstration, and demand *certainty*, where *probability* only is to be had, and which is sufficient to govern all our concerns. If we will disbelieve every thing, because we cannot certainly know all things; we shall do much-what as wisely as he who would not use his legs, but sit still and perish because he had no wings to fly.

6. When we know our own *strength*, we shall the better know what to undertake with hopes of success. And when we have well survey'd the *powers* of our own minds, we shall not be inclin'd either to sit still, and not set our thoughts on work at all, in despair of knowing any thing; nor on the other side, question every thing, and disclaim all knowledge, because some things are not to be understood. Our *Business* here, is not to know all things, but those things which concern our conduct. if we can find out those measures whereby a *rational creature*, put into that state which man is in, in this world, may and ought to govern his opinions and actions depending thereon, we need not be troubled that some other things scape our knowledge.

7. This was that which gave the first *rise* to this *essay* concerning the understanding. For I thought that the first step towards satisfying several enquiries the mind of man was very apt to run into, was to take a survey of our *Understandings*, examine our own *powers*, and see to what things

they were adapted. Till that was done, I suspected we began at the wrong end, and in vain sought for satisfaction in a quiet and secure possession of truths that most concern'd us, whilst we let loose our thoughts in the vast *ocean* of being, as if all that boundless extent were the natural and undoubted possessions of our understandings; wherein there was nothing exempt from its decisions, or that escaped its comprehension. Thus men extending their enquiries beyond their capacities, and letting their thoughts wander into those depths where they can find no sure footing, it is no wonder that they raise *questions* and multiply *disputes*, which never coming to any clear resolution, are proper only to continue and increase their doubts, and to confirm them at last in perfect *scepticism*. Whereas were the capacities of our understandings well considered, the extent of our knowledge once discovered, and the *horizon* found, which sets bounds between the enlightned and dark parts of things, between what is, and what is not comprehensible by us, men would perhaps with less scruple acquiesce in the avow'd ignorance of the *one*, and imploy their thoughts and discourse, with more advantage and satisfaction in the *other*.

B O O K II.

C H A P. I.

Of Ideas in General, and their Original.

BY the term *idea*, I mean whatever is the object of the understanding, when a man *thinks*; or whatever it is which the mind can be employ'd about in thinking.

I presume it will be easily granted me, that there are such *ideas* in mens minds: every one is conscious of them in himself; and mens words and actions will satisfy him that they are in others. our *first inquiry* then shall be, how they come into the mind.

It is an establish'd opinion amongst some men, that there are in the understanding certain *innate principles*, some primary notions, (*Κοινὰ ἔννοιαι*) *characters*, as it were stamp'd upon the mind of man, which the soul receives in its very first being, and brings into the world with it.

This opinion is accurately discuss'd, and refuted in the *first book* of this *essay*, to which I shall refer the reader, that desires satisfaction in this particular.

It shall be sufficient here to shew, how men barely by the use of their *natural faculties*, may attain to all the knowledge they have, without the help

of any *innate* impressions; and may arrive at certainty without any such original notions or principles. For I imagine, any one will easily grant, that it would be impertinent to suppose the *ideas* of *colours* innate in a creature to whom God hath given *sight*, and a power to receive them by the eyes from external objects. I shall shew by what ways and degrees all other *ideas* come into the mind; for which I shall appeal to every one's own experience and observation.

Let us then suppose the mind to be, as we say *white paper*, void of all characters, without any *ideas*: how comes it to be furnished? whence has it all the materials of reason and knowledge? to this I answer, in one word, from *experience* and *observation*. This, when employ'd about external sensible objects, we may call *sensation*: by this we have the *ideas* of *bitter*, *sweet*, *yellow*, *hard*, &c. which are commonly call'd *sensible qualities*, because convey'd into the mind by the *senses*. The same *experience*, when employ'd about the internal operations of the mind, perceiv'd, and reflected on by us, we may call *reflection*. Hence we have the *ideas* of *perception*, *thinking*, *doubting*, *willing*, *reasoning*, &c.

These two, *viz.* *external material things*, as the objects of sensation; and the *operations of our own minds*, as the objects of reflection, are to me the only *originals* from whence all our *ideas* take their

beginnings. The understanding seems not to have the least glimmering of *ideas*, which it doth not receive from one of these two *sources*. These, when we have taken a full survey of them, and their several *modes* and compositions, we shall find to contain our whole stock of *ideas*; and that we have nothing in our minds which did not come in one of these two ways.

'Tis evident that children come by degrees to be furnish'd with *ideas* from the objects they are conversant with. They are so surrounded with bodies that perpetually and diversly affect them, that some *ideas* will (whether they will or no) be imprinted on their minds. *Light* and *colours*, *sounds*, and *tangible* qualities, do continually sollicit their proper *senses*, and force an entrance into the mind. 'Tis late commonly before *children* come to have *ideas* of the operation of their minds; and some men have not any very clear or perfect *ideas* of the greatest part of them all their lives. Because, tho' they pass there continually; yet, like floating visions, they make not deep impressions enough to leave in the mind clear and lasting *ideas*, till the understanding turns inward upon its self, and *reflects* on its own operations, and makes them the objects of its own contemplation.

When a man *first perceives*, then he may be said *to have ideas*; having *ideas*, and perception, signifying the same thing. It is an opinion main-

tain'd by some, that the *soul always thinks*, and that it always has the actual perception of *ideas* as long as it exists : and that *actual thinking* is as inseparable from the soul, as *actual extension* is from the body. But I cannot conceive it any more necessary for the soul always to *think*, than for the body always to *move* : the perception of *ideas* being (as I conceive) to the soul, what motion is to the body, not its *essence*, but one of its *operations* : and therefore, though thinking be never so much the proper action of the soul, yet it is not necessary to suppose, that it should always think, always be in action. That perhaps is the privilege of the infinite *author* and preserver of all things, *who never slumbers nor sleeps* ; but is not competent to any *finite* being. We know certainly by experience, that we sometimes think ; and thence draw this infallible consequence, that there is something in us that has a power to think, but whether that substance perpetually thinks or no, we can be no farther assured than experience informs us.

I would be glad to learn from those men, who so confidently pronounce, that the human soul always thinks, how they come to know it : nay, how they come to know that they themselves think, when they themselves do not perceive it. The most that can be said of it, is, that 'tis possible the soul may always think ; but not always retain it in *memory* : and, I say, it is as possible the soul

may not always think ; and much more probable that it should sometimes not think, than that it should often think, and that a long while together, and not be conscious to it self the next moment after that it had thought.

I see no reason therefore to believe, that the soul thinks before the senses have furnish'd it with *ideas* to think on ; and as those are increas'd and retain'd, so it comes by exercise to improve its faculty of thinking, in the several parts of it ; as well as afterwards by *compounding* those *ideas*, and *reflecting* on its own operations, it increases its *stock*, as well as facility in remembring, imagining, reasoning, and other *modes* of thinking.

C H A P. II.

Of Simple Ideas.

OF ideas some are *simple*, others *complex*. A *simple idea*, is one uniform appearance or conception in the mind, which is not distinguishable into different *ideas*. such are the *ideas* of *sensible qualities*, which though they are in the things themselves so united and blended, that there is no separation, no distance between them ; yet the *ideas* they produce in the mind, enter by the senses simple and unmix'd. Thus, tho' the hand feels *softness* and *warmth* in the same piece of wax ;

yet the *simple ideas* thus united in the same subject, are as perfectly *distinct* as those that come in by different senses.

These *simple ideas* are suggested no other way than from the two ways above-mentioned, *viz.* *sensation* and *reflexion*.

The mind being once stored with the *simple ideas*, has the power to repeat, compare, and unite them to an infinite variety: and so can make at pleasure new *complex ideas*. But the most enlarged understanding cannot frame one new *simple idea*; nor by any force destroy them that are there.

C H A P. III.

Of Ideas of one Sense.

I*Deas* with reference to the different ways wherein they approach the mind, are of *four sorts*.

First, There are some which come into our minds by *one sense* only.

Secondly, There are others convey'd into the mind by *more senses than one*.

Thirdly, Others that are had from *reflexion* only.

Fourthly, There are some suggested to the mind by all the ways of *sensation* and *reflexion*.

First, Some enter into the mind only by one sense peculiarly adapted to receive them. Thus *colours*, *sounds*, *smells*, &c. come in only by the

eyes, ears, and nose. And if these organs are any of them so disorder'd as not to perform their functions, they have no postern to be admitted by; no other way to bring themselves in view, and be perceiv'd by the understanding. It will be needless to enumerate all the particular *simple ideas* belonging to each *sense*; nor indeed is it possible; there being a great many more than we have *names* for.

C H A P. IV.

Of Solidity.

I Shall here mention one which we receive by our *touch*, because it is one of the chief ingredients in many of our complex ideas; and that is the idea of *solidity*: it arises from the resistance, one body makes to the entrance of another body into the place it possesses, till *it* has left it. There is no idea which we more constantly receive from *sensation* than this. In whatever posture we are, we feel somewhat that supports us, and hinders us from sinking downwards: and the bodies we daily handle, make us perceive, that while they remain between them, they do by an unsurmountable force hinder the approach of the parts of our hands that press them. This idea is commonly called *impenetrability*. I conceive *solidity* is more proper

to express it, because this carries something more of *positive* in it than *impenetrability*, which is *negative*, and is perhaps more a consequence of solidity, than solidity it self. This seems to be the most *essential* property of body, and that whereby we conceive it to fill space: The idea of which is, that where we imagine any space taken up by a solid substance, we conceive it so to possess it, that it excludes all other solid substances. This resistance is so great, that no force can surmount it. all the bodies in the world pressing a *drop of water* on all sides, will never be able to overcome the resistance it makes to their approaching one another, till it be removed out of their way.

The idea of solidity is distinguished from that of *pure space*, in as much as this *latter* is neither capable of resistance, nor motion: 'tis distinguished from *hardness*, in as much as hardness is a firm cohaesion of the solid parts of matter making up masses of a sensible bulk, so that the whole doth not easily change its figure. Indeed, *hard* and *soft*, as commonly apprehended by us, are but *relative* to the constitutions of our bodies: that being called *hard* which will put us to pain sooner than change its figure, by the pressure of any part of our bodies; and that *soft*, which changes the situation of its parts upon an easie and unpainful touch.

This difficulty of changing situation amongst

the parts gives no more *solidity* to the hardest body, than to the softest; nor is an *adamant* one jot more solid than *water*: he that shall fill a yielding soft body well with *air* or *water*, will quickly find its resistance. By this we may distinguish the idea of the extension of *body*, from the idea of the extension of *space*: that of *body*, is the cohaesion or continuity of solid, separable, and movable parts; that of *space*, the continuity of unsolid, inseparable, and immovable parts. Upon the solidity of bodies depends their mutual *impulse*, *resistance*, and *protrusion*. Of *pure space* and *solidity* there are several (among which I confess my self one) who perswade themselves they have clear and distinct ideas: and that they can think on *space* without any thing in it that resists, or is protruded by body, as well as on something *that fills space*, that can be protruded by the impulse of other bodies, or resist their motion; the idea of the distance between the opposite parts of a concave surface, being equally clear without, as with the idea of any solid parts between. If any one ask what this *solidity* is, I send him to his senses to inform him: let him put a *flint* or *foot-ball* between his hands, and then endeavour to join them, and he will know.

C H A P. V.

Of simple Ideas of divers Senses.

SOME ideas we get into the mind by *more than one sense*, as *space, extension, figure, rest and motion*. These are perceivable by the eyes and touch.

C H A P. VI.

Of simple Ideas of Reflection.

SOME are had from *reflection*, only : such are the ideas we have of the *Operations* of our minds : of which the two principal are *perception* or *thinking* ; and *volition* or *willing*. The powers of producing these operations are call'd *faculties*, which are the *understanding* and *will*, the *several modes* of thinking, &c. belong to this head.

C H A P. VII.

Of simple Ideas of Sensation and Reflection.

THERE are some simple ideas convey'd into the mind by all the ways of *sensation* and *reflection* ; such are *pleasure, pain, power, existence*,

unity, succession. Pleasure or delight, pain or uneasiness accompany almost every impression on our senses, and every action or thought of the *mind*. By *pleasure* or *pain* we mean whatever delights or molests us, whether it arises from the thoughts of our minds; or any thing operating on our bodies. Satisfaction, delight, pleasure, happiness and uneasiness, trouble, torment, misery, &c. are but different degrees, the one of pleasure, the other of pain.

The author of our beings having given us a power over several parts of our bodies to move or keep them at rest as we think fit; and also by their motion to move our selves and other contiguous bodies; having also given a power to our minds in several instances, to chuse amongst its ideas which it will think on: to excite us to these actions of *thinking* and *motion* he has join'd to several thoughts and sensations a perception of *delight*: without this we should have no reason to prefer one thought or action to another, motion to rest. In which state, man however furnish'd with the faculties of understanding and will, would be a very idle unactive creature, and pass his time only in a lazy lethargick dream.

Pain has the same efficacy to set us on work that pleasure has; since we are as ready to avoid that, as to pursue this. This is worth our consideration, that *pain is often produc'd by the same ob-*

jects and ideas that produce pleasure in us. This their near conjunction gives us new occasion of admiring the wisdom and goodness of our *Maker*, who designing the preservation of our being, has annexed pain to the application of many things to our bodies, to warn us of the harm they will do us, and as advices to withdraw us from them. But he not designing our preservation barely, but the preservation of every part and organ in its perfection, hath in many cases annex'd pain to those very ideas which delight us. Thus *heat* that is very agreeable to us in one degree, by a little greater increase of it, proves no ordinary torment : which is wisely order'd by *nature*, that when any object does by the vehemence of its operation disorder the instruments of sensation, whose structures cannot but be very delicate, we might by the pain be warn'd to withdraw before the organ be quite put out of order. That this is the *end of pain*, appears from this consideration ; that tho' great light is insufferable to the eyes ; yet the highest degree of *darkness* does not at all disease them : because *that* causes no disorderly motion in that curious organ the eye. But excess of *cold* as well as *heat* pains us ; because it is equally destructive to the temper which is necessary to the preservation of life.

Another reason why God hath annex'd several degrees of pleasure and pain to all the things that

environ and affect us, and blended them together in all things that our thoughts and senses have to do with, is, that we finding imperfection and dissatisfaction, and want of compleat happiness in all the enjoyments of the creatures, might be led to seek it in the enjoyment of him *with whom is fullness of joy, and at whose right hand are pleasures for evermore*. Tho' what is here said concerning *pleasure* and *pain* may not perhaps make those ideas clearer to us, than our own experience does, yet it may serve to give us due sentiments of the wisdom and goodness of the *sovereign* disposer of all things, which is not unsuitable to the main end of these enquiries: the knowledge and veneration of him being the *chief end* of all our thoughts, and the proper business of all understandings.

Existence and *unity* are two other ideas suggested by every object without, and every idea within: when ideas are in our minds, we consider them as being actually there, as well as we consider things to be actually without us; which is, that they *exist*, or have existence: and whatever we consider as *one thing*, whether a *real being* or *idea*, suggests the idea of *unity*.

Power is another idea deriv'd from these sources: for finding in our selves that we can *think*, and *move* several parts of our bodies at pleasure; and observing the *effects* that natural bodies pro-

duce in one another : by both these ways we get the idea of *power*.

Succeſſion is another idea ſuggeſted by our ſenſes, and by reflection on what paſſes in our minds. For if we look into our ſelves, we ſhall find our *ideas* always whiſt we are awake, or have any thought, paſſing in train, one going and another coming without intermiſſion.

C H A P. VIII.

Some farther conſiderations concerning ſimple Ideas.

W^HATſoever is able by affecting our ſenſes, to cauſe any perception in the mind, doth thereby produce in the underſtanding a *ſimple idea* ; which whatſoever be the cauſe of it, is look'd upon as a *real poſitive idea* in the underſtanding. Thus the ideas of *heat* and *cold*, *light* and *darkneſs*, *motion* and *reſt*, &c. are equally poſitive in the mind, tho' ſome of their cauſes may be meer *privations*. An enquiry into their cauſes concerns not the ideas as in the underſtanding ; but the nature of the things exiſting without us. Thus a *painter* has diſtinct ideas of white and black, as well as the philoſopher, who tells us what kind of particles, and how rang'd in the ſurface, occaſion'd thoſe colours.

That a *privative* cauſe may produce a *poſitive*

idea, appears from shadows; which (tho' nothing but the absence of light) are discernible; and cause clear and positive ideas. The natural reason of which may be this, *viz.* that since sensation is produc'd only by different degrees and modes of motion in our animal spirits, variously agitated by external objects; the abatement of any former motion must as necessarily produce a new sensation as the increase and variation of it; and thereby introduce a new idea. We have indeed some *negative* names which stand not directly for positive ideas, but for their absence; such as *insipid, silence*, which denote positive ideas, *viz. taste and sound*, with a signification of their absence.

It will be useful to distinguish *ideas* as they are *perceptions* in our minds, from what *they are in the bodies* that cause such perceptions in us: for we are not to think the former exact images and resemblances of something inherent in the subject, most of those of *sensation* being in the mind, no more the likeness of something existing without us, than the names that stand for them are the likeness of our ideas, which yet upon hearing, they are apt to excite in us.

Whatsoever the *mind perceives in its self*, or is the immediate object of perception, thought or understanding, that I call an idea: and the power to produce any idea in our mind, I call the *quality of the subject* wherein that power is: thus a *snow-ball*

having the power to produce in us the ideas of *white, cold, and round*, those *powers* as they are in the snow-ball, I call *qualities*; and as they are *sensations* or *perceptions* in our understandings I call them *ideas*: which ideas if I speak of sometimes, as in the things themselves, I would be understood to mean those *qualities* in the objects which produce them in us. These *qualities* are of *two sorts*, first, *original* or *primary*, such are *solidity, extension, motion or rest, number and figure*. These are inseparable from body, and such as it constantly keeps in all its changes and alterations: thus take a grain of *wheat*, divide it into two parts, each part has still *solidity, extension, figure, mobility*: divide it again, and it still retains the same qualities, and will do still, tho' you divide it on till the parts become insensible.

Secondly, *Secondary qualities*, such as *colours, smells, tastes, sounds, &c.* which whatever reality we by mistake may attribute to them, are in truth nothing in the objects themselves, but *powers* to produce various sensations in us; and depend on the qualities before-mentioned.

The *ideas* of *primary* qualities of bodies are resemblances of them: and their patterns really exist in bodies themselves: but the ideas produced in us by *secondary* qualities, have no resemblance of them at all: and what is *sweet, blue* or *warm* in the idea, is but the certain bulk, figure, and moti-

on of the insensible parts in the bodies themselves, which we call so.

Thus we see that fire at one distance produces in us the sensation of *warmth*, which at a nearer approach causes the sensation of *pain*. Now what reason have we to say that the idea of *warmth* is actually in the fire, but that of *pain* not in the fire, which the same fire produces in us the same way? the bulk, number, figure and motion of the parts of fire, are really in it, whether we perceive them or no; and therefore may be call'd *real* qualities, because they really exist in that body. But *light* and *heat* are no more really in it, than sickness or pain: take away the sensation of them; let not the eyes see light or colours, nor the ear hear sounds; let the palate not taste, or the nose smell, and all *colours, tastes, odours* and *sounds*, as they are such particular ideas vanish and cease, and are reduc'd to their causes (that is) bulk, motion, figure, &c. of parts.

These *secondary* qualities are of two sorts, first *immediately perceivable*, which by immediately operating on our bodies, produce several different ideas in us. Secondly, *mediately perceivable*, which by operating on other bodies, change their primary qualities, so as to render them capable of producing ideas in us different from what they did before. These last are powers in bodies which proceed from the particular constitution of those primary

and original qualities, to make such a change in the *bulk, figure, texture, &c.* of another body, as to make it operate on our senses different from what it did before; as in fire to make lead fluid: these two last being nothing but powers relating to other bodies, and resulting from the different modifications of the original qualities are yet otherwise thought of; the former being esteemed *real qualities*; but the latter barely *powers*: the reason of this mistake seems to be this; that our ideas of sensible qualities containing nothing in them of bulk, figure, &c. we cannot think them the effect of those primary qualities which appear not to our senses to operate in their productions, and with which they have not any apparent congruity, or conceivable connexion: nor can reason shew how bodies by their bulk, figure, &c. should produce in the mind the ideas of *warm, yellow, &c.* but in the other case, when bodies operate upon one another, we plainly see that the quality produced hath commonly no resemblance with any thing in the thing producing it, and therefore we look upon it as the effect of power: but our senses not being able to discover any unlikeness between the idea produced in us, and the quality of the object producing it, we imagine that our ideas are resemblances of something in the objects, and not the effects of certain powers plac'd in the modification of the pri-

mary qualities, with which primary qualities the ideas produced in us have no resemblance.

This little excursion into natural philosophy was necessary in our present enquiry to distinguish the *primary* and real qualities of bodies which are always in them, from those *secondary* and imputed qualities, which are but the powers of several combinations of those primary ones, when they operate without being distinctly discerned; whereby we learn to know what ideas are, and what are not resemblances of something really existing in the bodies we denominate from them.

C H A P. IX.

Of Perception.

P*erception* is the first idea we receive from reflection: it is by some called *thinking* in general: tho' *thinking* in the propriety of the *English* tongue, signifies that sort of operation of the mind about its ideas, wherein the mind is active; where it considers any thing with some degree of voluntary attention: for in bare *perception* the mind is for the most part only *passive*; and what it perceives it cannot avoid perceiving. What this is, we cannot otherwise know, than by reflecting on what passes in our minds when we *see, feel, hear, &c.*

Impressions made on the outward parts if they

are not taken notice of within, cause no *perception*: as we see in those whose minds are intently busied in the contemplation of certain objects. A sufficient impulse there may be upon the organs of sensation: but if it reach not the observation of the mind, there follows no perception: so that where-ever there is sense or perception, there some idea is actually produced and present in the understanding.

We may observe that the ideas we receive from sensation, are often in grown people alter'd by the judgment without our taking notice of it. Thus a globe of any uniform colour (as of gold or jet) being set before our eyes, the idea thereby imprinted is of a flat circle variously shadowed. But being accustomed to perceive what kind of appearances convex bodies are wont to make in us; the judgment alters the appearances into their causes; and from that variety of shadow or colour, frames to itself the perception of a convex figure of one uniform colour. This in many cases by a settl'd habit is perform'd so readily, that we take that for the perception of our sensation, which is but an idea form'd by the judgment: so that one serves only to excite the other, and is scarce taken notice of itself. As a man who reads or hears with attention, takes little notice of the characters or sounds, but of the ideas that are excited in him by them. Thus habits

come at last to produce actions in us, which often escape our observation.

The faculty of *perception* seems to be that which puts the distinction between the animal kingdom and the inferior parts of nature: since vegetables many of them have some degrees of motion, and upon the different application of other bodies to them, do very briskly alter their figures and motions, and thence have obtain'd the name of *sensitive plants*: which yet is, I suppose, but bare *mechanism*, and no otherways produced, than the shortning of a rope by the affusion of water. But perception, I believe, is in some degree in all sorts of animals: tho' I think we may from the make of an *Oyster* or *Cockle*, reasonably conclude that it has not so many nor so quick senses as a man, or several other animals.

Perception is also the first step and degree towards knowledge, and the inlet of all the materials of it: so that the fewer senses any man has, and the duller the impressions that are made by them are, the more remote he is from that knowledge which is to be found in other men.

C H A P. X.

Of Retention.

THE next faculty of the mind whereby it makes a farther progress towards knowledge, I call *Retention*: which is the keeping of those ideas as it has receiv'd: which is done two ways.

First, By keeping the idea which is brought into the mind for some time actually in view, which is called *Contemplation*.

Secondly, By reviving those ideas in our minds which have disappear'd, and have been as it were, laid out of sight: and this is *memory*, which is as it were the store-house of our ideas; for the narrow mind of man not being capable of having many ideas under view at once, it was necessary to have a repository to lay up those ideas which at another time it may have use of. But our *ideas* being nothing but actual perceptions in the mind which cease to be any thing, when there is no perception of them, this laying up of our *ideas* in the repository of the memory signifies no more but this, that the mind has a power in many cases to revive perceptions it has once had, with this additional perception annex'd to them, that it has had them before. And it is by the assistance of this faculty, that we are said to have all those ideas in our under-

standings, which we can bring in sight, and make the objects of our thoughts, without the help of those sensible qualities which first imprinted them there.

Attention and repetition help much to the fixing *ideas* in our memories : but those which make the deepest and most lasting impressions are those which are accompanied with *pleasure* or *pain*. *Ideas* but once taken in and never again repeated are soon lost ; as those of colours in such as lost their sight when very young.

The memory in some men is tenacious, even to a miracle : but yet there seems to be a constant decay of all our *ideas*, even of those which are struck deepest ; and in minds the most retentive : so that if they be not sometimes renewed, the print wears out, and at last there remains nothing to be seen. Those *ideas* that are often refresh'd by a frequent return of the objects or actions that produce them, fix themselves best in the memory, and remain longest there : such are the *original qualities of bodies*, viz. Solidity, Extension, Figure, Motion, &c. and *those that almost constantly affect us*, as heat and cold : and those that are the *affections of all kinds of beings*, as Existence, Duration, Number : these and the like are seldom quite lost while the mind retains any *ideas* at all.

In memory the mind is oftentimes more than barely *passive* ; for it often sets itself on work to

search some hidden *ideas*; sometimes they start of their own accord: and sometimes turbulent and tempestuous passions tumble them out of their cells.

The defects of the memory are *two*.

First, that it loses the *idea* quite, and so far it produces perfect *ignorance*.

Secondly, That it moves slowly, and retrieves not the *ideas* laid up in store quick enough to serve the mind upon occasions. This, if it be to a great degree, is *stupidity*. In the having *ideas* ready at hand on all occasions, consists what we call *Invention*, *Fancy*, and *quickness of parts*.

This faculty other *animals* seem to have to a great degree, as well as *Man*, as appears by birds learning of tunes, and their endeavour to hit the notes right. For it seems impossible that they should endeavour to conform their voices (as 'tis plain they do) to notes, whereof they have no *ideas*.

C H A P. XI.

Of Discerning, and other operations of the mind.

ANother faculty of the mind is, that of *discerning between its ideas*: on this depends the evidence, and certainty of several even general propositions, which pass for *innate truths*: whereas indeed they depend on this clear discerning facul-

ty of the mind, whereby it perceives two *ideas* to be the same or different. In being able nicely to distinguish one thing from another, where there is the least difference, consists in a great measure that *exactness of judgment* and *clearness of reason*, which is to be observ'd in one man above another; which is quite opposite to *wit*, which consists most in the assemblage of *ideas*, and putting those together with quickness and variety, which have the least resemblance, to form agreeable visions: whereas judgment separates carefully those *ideas*, wherein can be found the least difference to prevent error and delusion.

To the well distinguishing our *ideas*, it chiefly contributes that they be clear and determinate; and when they are so, it will not breed any confusion or mistake about them, tho' the senses should convey them from the same object differently on different occasions.

The *comparing* of our *ideas* one with another in respect of *Extent, Degree, Time, Place*, or any other circumstances, is another operation of the mind about its *ideas*, which is the ground of *Relations*. Brutes seem not to have this faculty in any great degree. They have probably several *ideas* distinct enough; but cannot compare them farther than some sensible circumstances annex'd to the objects themselves. The power of comparing general *ideas*, which we may observe in men, we

may probably conjecture *Beasts* have not at all.

Composition is another operation of the mind, whereby it combines several of its simple *ideas* into *complex* ones: under which operation we may reckon that of *Enlarging*, wherein we put several *ideas* together of the same kind, as several unites to make a *dozen*. In this also I suppose brutes come far short of Man, for tho' they take in and retain together several combinations of simple *ideas*, as possibly a dog does the *shape*, *smell* and *voice* of his Master; yet these are rather so many distinct marks, whereby he knows him than one *complex idea* made out of those several simple ones.

Abstraction is another operation of the mind, whereby the mind forms general *ideas* from such as it receiv'd from particular objects, which it does by considering them as they are in the mind such appearances, separate from the circumstances of real existence, as *Time*, *Place*, &c. These become general *representatives* of all of the same kind, and their names applicable to whatever exists conformable to such abstract *ideas*. Thus the colour which I receive from *Chalk*, *Snow* and *Milk*, is made a representative of all of that kind; and has a name given it (*Whiteness*) which signifies the same quality, wherever to be found or imagin'd. And thus *Universals*, both *ideas* and *terms*, are made.

This puts the great difference between Man and Brutes: they seem to reason about particular ob-

jects, and *ideas*, but there appear no footsteps of *Abstraction* in them, or of making *general ideas*.

C H A P. XII.

Of Complex Ideas.

IN the reception of simple ideas the mind is only *passive*, having no power to frame any one to its self, nor have any idea which does not wholly consist of them. But about these simple ideas it exerts several acts of its own, whereby out of them as the materials and foundations of the rest, the other are fram'd: the acts of the mind, wherein it exerts its power over its simple ideas, are chiefly these three: first, it combines several simple ideas into one compound one, and thus all *complex ideas* are made. Secondly, it brings two ideas whether *simple* or *complex* together, and sets them by one another, so as to take a view of them at once without uniting them into one; by which way it gets all its ideas of relations. Thirdly, it separates them from all other ideas that accompany them in their real existence. And thus all its *general ideas* are made. I shall here begin with the first of these, and come to the other two in their due places. As *simple ideas* are observ'd to exist in several combinations united together, so the mind may consider them as united, not only as they are really united in external objects, but as it self has join'd

them. *Ideas* thus made up of several ones put together, I call *complex*, as *Man*, *Army*, *Beauty*, *Gratitude*, &c. By this faculty of repeating and joyn- ing together its *ideas*, the mind has great power in varying and multiplying the objects of its thoughts. But it is still confin'd to those simple *ideas* which it receiv'd from the two sources of *sensation* and *reflection*. It can have no other *ideas* of sensible qualities, than what come from without by the senses, nor any other *ideas* of the operations of a thinking substance, than what it finds in its self: but having once got these simple *ideas*, it can by its own power put them together and make new *complex ones*, which it never receiv'd so united.

Complex *ideas* however compounded, and de- compounded, tho' their number be infinite, and their variety endless, may all be reduc'd under these three heads, first *Modes*, secondly *Substances*, thirdly *Relations*.

Modes, I call such complex *ideas* which contain not the supposition of subsisting by themselves, but are consider'd as dependences on, and affections of substances, as *Triangle*, *Gratitude*, *Murder*, &c. These modes are of two sorts, first *Simple*, which are combinations of the same simple *idea*, as a *Dozen*, *Score*, &c. which are but the *ideas* of so many distinct unites put together. Secondly, *Mix'd*, which are compounded of simple *ideas* of several kinds, as *Beauty*, which consists in a certain com-

position of colour and figure, causing delight in the beholder. *Theft*, which is the concealed change of the possession of any thing without the consent of the proprietor. *These* visibly contain a combination of *ideas*, of several kinds.

Secondly, *Substances*, the *ideas* of substances are only such combinations of simple *ideas* as are taken to represent distinct particular things subsisting by themselves; in which the confused *idea* of substance is always the chief. Thus a combination of the *ideas* of a certain figure, with the powers of Motion, Thought, and Reasoning joyn'd to substance, make the ordinary *idea* of Man.

These again are either of *single substances*, as *Man, Stone*; or of *collective*, or several put together, as *Army, Heap*: *Ideas* of several substances thus put together, are as much each of them one *single idea*, as that of a *Man*, or an *Unite*.

Thirdly, *Relations* which consist in the consideration and comparing one *idea* with another. Of these several kinds we shall treat in their order.

C H A P. XIII.

Of Simple Modes, and first of the Simple Modes of Space.

CONCERNING *Simple Modes* we may observe that the modifications of any *Simple Idea*, are as

perfectly different and distinct ideas in the mind, as those of the greatest distance or contrariety; thus *Two* is as distinct from *Three*, as *Blueness* from *Heat*. Under this head I shall first consider the modes of *Space*.

Space is a simple idea which we get both by our sight and touch. When we consider it barely in length between two bodies, 'tis called *Distance*; when in length, breadth and thickness it may be called *Capacity*. When consider'd between the extremities of matter, which fills the capacity of space with something solid, tangible and moveable, it is called *Extension*; and thus *Extension* will be an *idea* belonging to body: but *Space* may be conceiv'd without it.

Each different *distance* is a different modification of space; and each *idea* of any different space is a *Simple Mode* of this *idea*. Such are an *Inch*, *Foot*, *Yard*, &c. which are the *ideas* of certain stated lengths which men settle in their minds for the use, and by the custom of measuring. When these *ideas* are made familiar to mens thoughts, they can in their minds repeat them as often as they will, without joyning to them the *idea* of body, and frame to themselves the *ideas* of Feet, Yards, or Fathoms beyond the utmost bounds of all bodies, and by adding these still one to another, enlarge their *idea* of space as much as they please. From this power of repeating any *idea* of Distance,

without being ever able to come to an end, we come by the *idea* of immensity.

Another modification of *Space* is taken from the *Relation* of the parts of the termination of Extension or circumscrib'd space amongst themselves: and this is what we call *Figure*. This the *Touch* discovers in sensible bodies, whose extremities come within our reach: and the *Eye* takes both from bodies and colours, whose boundaries are within its view; where observing how the extremities terminate either in straight lines, which meet at discernible angles; or in crooked lines, wherein no angles can be perceiv'd; by considering these as they relate to one another in all parts of the extremities of any body or space, it has that idea we call *Figure*: which affords to the mind infinite variety.

Another *Mode* belonging to this head, is that of *Place*. Our idea of *Place* is nothing but the relative position of any thing with reference to its distance from some fix'd and certain points. Whence we say, that a thing has or has not changed *Place*, when its distance either is or is not altered with respect to those bodies with which we have occasion to compare it. That this is so, we may easily gather from hence; that we can have no idea of the place of the *Universe*, tho' we can of all its parts. To say that the world is *somewhere*, means no more, than that it does *exist*. The word *Place* is sometimes

taken to signifie that *Space* which any body takes up; and so the Universe may be conceived in a Place.

C H A P. XIV.

Of Duration and its Simple Modes.

TH E R E is another sort of *Distance*, the *idea* of which we get from the fleeting, and perpetually perishing parts of succession, which we call *Duration*. The Simple Modes of it are any different lengths of it, whereof we have distinct *ideas*, as *Hours, Days, Years, &c. Time and Eternity*.

The *idea* of *Succession* is got by reflecting on that train of *ideas* which constantly follow one another in our minds as long as we are awake. The distance between any parts of this *Succession* is what we call *Duration*: and the continuation of the existence of our selves, or any thing else *commensurate* to the succession of any *ideas* in our minds, is what we call our *own Duration*, or *that* of another thing co-existing with our thinking. That this is so, appears from hence, that we have no perception of succession or duration, when that succession of our *ideas* ceases, as in *Sleep*: the moment that we sleep, and awake, how distant soever, seems to be joyn'd and connected. And possibly it would be so to a waking man, could he fix upon one *idea*

without variation, and the succession of others. And we see that they whose thoughts are very intent upon one thing, let slip out of their account a good part of that *Duration*, and think that time shorter than it is. But if a man during his sleep *dream*, and variety of *ideas* make themselves perceptible in his mind, one after another he hath then, during such dreaming, a sense of duration and of the length of it.

A man having once got this *idea* of duration, can apply it to things which exist while he does not think : and thus we measure the time of our sleep, as well as that wherein we are awake.

Those who think we get the *idea* of *succession* from our observation of Motion, by our senses, will be of our opinion, when they consider that Motion produces in the mind an *idea* of Succession, no otherways than as it produces there a continu'd train of distinguishable *ideas*. A man that looks upon a body really moving perceives no motion, unless that motion produces a constant *train of successive ideas*. But wherever a man is, tho' all things be at rest about him, if he thinks, he will be *conscious* of *Succession* without perceiving any motion. Hence motions very *slow* are not perceived by us ; because the change of distance is so slow, that it causes no new *ideas* in us, but after a long interval. The same happens in things that move very *swift*, which not affecting the sense with several distin-

guishable distances of their motion, cause not any train of *ideas* in our minds, and consequently are not perceived. Thus any thing that moves round in a circle in less time than our *ideas* are wont to succeed one another in our minds, is not perceiv'd to move, but seems to be a perfect intire circle of that matter which is in motion. Such a part of duration as takes up the time of only one *idea* in our minds, wherein we perceive no succession, we call an *Instant*.

Duration, as mark'd by certain periods and measures, is what we most properly call *Time*: which we measure by the diurnal and annual *Revolutions* of the Sun, as being constant, regular, and universally observable by all mankind, and supposed equal to one another.

It is not necessary that time should be *measured by motion*: any constant periodical appearance in seemingly equidistant spaces, may as well distinguish the intervals of *Time* as what we make use of. For supposing the Sun to be lighted, and then extinguished every day: and that in the space of an annual revolution, it should sensibly encrease in brightness, and so decrease again; such a regular appearance would serve to measure out the distances of Duration, to all that could observe it, as well without, as with motion. The freezing of water, the blowing of a plant returning at equidistant periods in all the parts of the earth would serve for

the same purpose. In effect, we find that a people of *America* counted their years by the *coming* and *going away* of Birds at certain seasons.

The mind having once got such a measure of *Time*, as the annual revolution of the Sun, can easily apply it to Duration wherein that measure it self did not exist: and the *idea* of *Duration* equal to an *Annual Revolution of the Sun*, is as easily applicable in our thoughts to Duration where no Sun, nor motion was, as the *idea* of a *Foot* or *Yard* to distances beyond the confines of the world.

By the same means, and from the same original that we come to have the *idea* of *Time*, we have also that *idea* which we call *Eternity*: For having got the *ideas* of certain lengths of Duration, we can in our thoughts add them to one another as oft as we please, without ever coming to an end.

And thus it is plain, that from the two fountains of all knowledge before-mentioned, *viz. Sensation* and *Reflection*, we get the ideas of Duration, and the several measures of it. For,

1st. By observing what passes in our minds, how our ideas there in train constantly, some vanish, and others begin to appear, we come by the idea of *Succession*.

2^{dly}. By observing a distance in the parts of this Succession we get the idea of *Duration*.

3^{dly}. By observing certain appearances at regular and seemingly equidistant periods, we get the

ideas of certain lengths or measures of Duration, as *Minutes, Hours, Days, &c.*

4thly. By being able to repeat those measures of Time, as often as we will, we can come to imagine *Duration, where nothing does really endure or exist* : Thus we imagine to-morrow, next year, or seven years hence.

5thly. By being able to repeat any such idea of any length of time, as of a Minute, Year, &c. as often as we will, and add them one to another without ever coming to an end, we come by the idea of *Eternity*.

6thly. By considering any part of infinite Duration, as set out by periodical measures, we come by the idea of what we call *Time* in general.

C H A P. XV.

Of Duration and Expansion considered together.

TIME is to *Duration* as *Place* is to *Space* or *Expansion*. They are so much of those boundless oceans of *Eternity* and *Immensity* as is set out and distinguished from the rest : and so are made use of to denote the position of finite real beings in respect one to another, in those infinite oceans of Duration and Space. Each of these have a *twofold* acceptance.

First, Time in general is taken for so much of

infinite Duration as is coexistent with the Universe, and measured out by the motions of its great bodies. Thus it is used in the phrases *before all time, when time shall be no more.*

Place is likewise taken for that *portion* of infinite space possessed by the material world, tho' this might be more properly called *Extension*. Within *these two* are confined the particular Time or Duration, Extension or place of all corporeal beings.

Secondly, Time is sometimes applied to parts of that infinite Duration that were not really measur'd out by real Existence, but such as we upon occasion do suppose equal to certain lengths of measur'd Time, as in the *Julian Period*, which makes an excursion of seven hundred sixty four years beyond the Creation. Thus we may speak of Place or Distance in the great *Inane*, wherein I can conceive a space equal to, or capable of receiving a body of any assigned dimensions.

C H A P. XVI.

Of Numbers.

TH E complex *ideas* of *Number* are form'd by adding several *Unites* together. The *Simple Modes* of it are each several combinations, as, *Two, Three, &c.* These are of all others most distinct, the nearest being as clearly different from each o-

ther as the most remote: *Two* being as distinct from *One*, as two hundred. But it is hard to form distinct *ideas* of every the least excess in Extension. Hence demonstrations in numbers are more general in their use, and more determinate in their application than those of Extension.

Simple Modes of Numbers, being in our minds but so many combinations of Unites which have no variety, but more or less: *Names* for each distinct combination, seem more necessary than in any other sort of *ideas*. For without a *name* or *mark*, to distinguish that precise collection, it will hardly be kept from being a heap of confusion. Hence some *Americans* have no distinct *idea* of any number beyond twenty: so that when they are discoursed with of greater numbers, they shew the hairs of their head. So that to reckon right two things are required.

First, That the mind distinguish carefully two *ideas* which are different one from another, only by the addition or subtraction of one Unite.

Secondly, that it retain in memory the names or marks of the several combinations from a Unite to that number; and that in exact order, as they follow one another. In either of which if it fails, the whole business of *Numbring* will be disturbed; and there will remain only the confused *idea* of *Multitude*: but the *ideas* necessary to distinct Numeration will not be attained to.

C H A P. XVII.

Of Infinity.

THE *idea* signified by the name *Infinity*, is best examin'd, by considering to *what* Infinity is by the Mind attributed, and then *how* it frames it. *Finite* and *Infinite* then are look'd upon as the modes of Quantity, and attributed primarily to things that have parts, and are capable of increase or diminution, by the *Addition* or *Subtraction* of any the least part. Such are the *ideas* of *Space*, *Duration*, and *Number*.

When we apply this *idea* to the *Supreme Being*, we do it primarily in respect of his *Duration* and *Ubiquity*; more figuratively when to his *Wisdom*, *Power*, *Goodness*, and other attributes which are properly *inexhaustible* and *incomprehensible*: for when we call them *Infinite*, we have no other *idea* of this *Infinity*, but what carries with it some reflection on the *Number*, or the *Extent* of the *acts* or *objects* of God's *Power* and *Wisdom*, which can never be supposed so great or so many, that these attributes will not always surmount and exceed, tho' we multiply them in our thoughts, with the *Infinity* of *endless Number*. I do not pretend to say, how these attributes *are in God*, who is infinitely beyond the reach of our narrow capacities: but this

is our way of *conceiving them*, and these our *ideas* of their Infinity.

The next thing to be considered, is *how we come* by the *idea* of Infinity. Every one that has any *idea* of any stated lengths of Space, as a *Foot, Yard, &c.* finds that he can repeat that *idea*, and join it to *another*, to a *Third*, and so on without ever coming to an end of his Additions: from this power of enlarging his *idea* of Space, he takes the *idea* of Infinite Space or *Immensify*. By the same power of repeating the *idea* of any length of Duration we have in our minds, with all the endless addition of Number, we come by the *idea* of *Eternity*.

If our *idea* of *Infinity* be got by repeating without end our own *ideas*; why do we not attribute it to other *ideas*, as well as those of *Space* and *Duration*; since they may be as easily and as often repeated in our minds as the other: yet no body ever thinks of infinite *Sweetness* or *Whiteness*, tho' he can repeat the *idea* of Sweet or White as frequently as those of *Yard* or *Day*. I answer, that those *ideas* that have parts, and are capable of increase, by the addition of any parts, afford us by their repetition an *idea* of Infinity; because with the endless repetition there is continued an enlargement, of which there is no end: but it is not so in other *ideas*: for if to the perfectest *idea* I have of *White*, I add another of equal whiteness; it enlarges not my *idea* at all. Those *ideas* that consist not

of parts, cannot be augmented to what proportion men please, or be stretch'd beyond what they have receiv'd by their senses, but *Space*, *Duration*, and *Number* being capable of increase by repetition, leave in the mind an *idea* of an endless room for more; and so those *ideas* alone lead the mind towards the thought of Infinity.

We are carefully to distinguish between the *idea* of the *Infinity of Space*, and the *idea* of a *Space Infinite*. The first is nothing but a supposed endless progression of the mind over any repeated *idea* of Space. But to have actually in the mind the *idea* of a Space Infinite, is to suppose the mind already passed over all those repeated *ideas* of Space, which an endless repetition can never totally represent to it; which carries in it a plain contradiction.

This will be plainer, if we consider *Infinity in Numbers*. The Infinity of numbers, to the end of whose addition every one perceives there is no approach, easily appears to any one that reflects on it: but how clear soever this *idea* of the Infinity of Number be, there is nothing yet more evident, than the absurdity of the actual *idea* of Infinite Number.

C H A P. XVIII.

Of other Simple Modes.

THE mind has several distinct *ideas* of *Sliding, Rowing, Walking, Creeping, &c.* which are all but the different modifications of motion. *Swift and Slow* are two different *ideas* of Motion, the measures whereof are made out of the distances of Time and Space put together.

The like variety we have in *Sounds*: every articulate word is a different modification of sound: as are also notes of different length put together, which make that complex *idea* call'd *Tune*.

The modes of *Colours* might be also very various: some of which we take notice of, as the different degrees, or as they are term'd shades of the same colour. But since we seldom make assemblages of Colours, without taking in Figure also, as in Painting, &c. Those which are taken notice of do most commonly belong to mix'd modes, as *Beauty, Rainbow, &c.*

All compounded *Tastes* and *Smells* are also modes made up of the simple *ideas* of those senses: but they being such as generally we have no names for, cannot be set down in writing, but must be left to the thoughts and experience of the reader.

C H A P. XIX.

Of the Modes of Thinking.

WHEN the mind turns its view inwards upon its self, *Thinking* is the first *idea* that occurs: wherein it observes a great variety of modifications; and thereof frames to its self distinct *ideas*. Thus the perception annex'd to any impression on the body made by an external object, is call'd *Sensation*. When an *idea* recurs without the presence of the object, it is call'd *Remembrance*. When sought after by the mind, and brought again in view, it is *Recollection*. When held there long under attentive consideration, it is *Contemplation*. When *ideas* float in the mind without regard or reflection, 'tis call'd in French *Resvery*, our language has scarce a name for it. When the *ideas* are taken notice of, and as it were registred in the memory, it is *Attention*. When the mind fixes its view on any one *idea*, and considers it on all sides, it is *Intention* and *Study*. *Sleep* without dreaming is rest from all these. And *Dreaming* is the perception of *ideas* in the mind, not suggested by any external objects, or known occasions; nor under any choice or conduct of the Understanding. Of these various modes of Thinking, the mind forms as distinct *ideas*, as it does of White and Red, a Square or a Circle.

C H A P. XX.

Of the Modes of Pleasure and Pain.

Pleasure and Pain are simple *ideas* which we receive both from Sensation and Reflection. There are thoughts of the Mind, as well as sensations, accompany'd with Pleasure or Pain. Their causes are term'd *Good* or *Evil*. For things are esteem'd Good or Evil only in reference to Pleasure or Pain. That we call *Good* which is apt to cause or increase Pleasure, or diminish Pain in us : to procure or preserve the possession of any Good, or absence of any Evil : and on the contrary, that we call *Evil*, which is apt to produce or increase any Pain, or diminish any Pleasure in us ; or else to procure us any Evil, or deprive us of any Good : by Pleasure and Pain I would be understood to mean of *Body* or *Mind*, as they are commonly distinguish'd ; tho' in truth they are only different constitutions of the mind, sometimes occasion'd by disorder in the body, sometimes by thoughts of the mind. *Pleasure* and *Pain*, and their causes *Good* and *Evil*, are the hinges upon which our passions turn : by reflecting on the various modifications or tempers of mind, and the internal sensations which Pleasure and Pain, Good and Evil produce in us, we may thence form to ourselves the *ideas*

of our Passions. Thus by reflecting upon the thought we have of the delight, which any thing is apt to produce in us, we have an *idea* we call *Love* : and on the contrary, the thought of the pain, which any thing present or absent produces in us, is what we call *Hatred*. *Desire* is that uneasiness which a man finds in himself upon the absence of any thing, the present enjoyment of which carries the *idea* of Delight with it. *Joy* is a Delight of the mind arising from the present or assur'd approaching possession of a Good. *Sorrow* is an uneasiness of the mind, upon the thought of a Good lost, or the sense of a present Evil. *Hope* is a Pleasure in the mind upon the thought of a probable future enjoyment of a thing which is apt to delight. *Fear* is an uneasiness of the mind upon the thought of a future Evil likely to befall us. *Anger* is a discomposure of mind upon the receipt of injury, with a present purpose of Revenge. *Despair* is the thought of the unattainableness of any Good. *Envy* is an uneasiness of mind, caused by the consideration of a Good we desire, obtained by one we think should not have had it before us.

It is to be considered that in reference to the Passions, the removal or lessening of a Pain, is consider'd, and operates as a Pleasure : and the loss or diminishing of a Pleasure, as a Pain. And farther, that the Passions in most persons operate on the body, and cause various changes in it : but these being not al-

ways sensible, do not make a necessary part of the *idea* of each Passion. Besides these modes of Pleasure and Pain which result from the various considerations of Good and Evil, there are many others, I might have instanced in, as the *Pain* of *Hunger* and *Thirst*, and the Pleasure of *Eating* and *Drinking*; and of *Musick*, &c. but I rather chose to instance in the Passions, as being of much more concernment to us.

C H A P. XXI.

Of Power.

THE mind being every day informed by the senses, of the alteration of those simple *ideas* it observes in things without: reflecting also on what passes within itself, and observing a constant change of its *ideas*, sometimes by the impressions of outward objects upon the senses; and sometimes by the determination of its own choice: and concluding from what it has so constantly observ'd to have been, that the like changes will for the future be made in the same things, by the same agents, and by the like ways, considers in one thing, the possibility of having any of its simple *ideas* chang'd; and in another, the possibility of making that change, and so comes by that *idea* which we call *Power*. Thus we say *Fire* has a Power to

melt Gold, and make it fluid; and *Gold* has a Power to be *melted*.

Power thus consider'd, is twofold, *viz.* as able to make, or able to receive any change: the one may be call'd *Active*, the other *Passive Power*. Of *Passive Power* all sensible things abundantly furnish us with *ideas*, whose sensible qualities and beings we find to be in a continual flux, and therefore with reason we look on them as liable still to the same change. Nor have we of *Active Power* fewer instances: since whatever change is observed, the mind must collect a power somewhere able to make that change. But yet if we will consider it attentively, bodies by our senses do not afford us so clear and distinct an *idea* of *Active Power*, as we have from reflection on the operations of our minds. For all power relating to Action, and there being but two sorts of *Action*, *viz.* *Thinking* and *Motion*, let us consider whence we have the clearest *ideas* of the powers which produce these actions.

Of *Thinking*, Body affords us no *idea* at all: it is only from Reflection that we have that; neither have we from Body any *idea* of the beginning of Motion. A Body at rest affords us no *idea* of any *Active Power* to move; and when it is set in Motion itself, that Motion is rather a Passion than an Action in it. The *idea* of the beginning of Motion we have only by reflection on what passes in our selves; where we find by experience that bare-

by willing it, we can move the parts of our bodies which were before at rest.

We find in our selves a Power to begin or forbear, continue or end several actions of our minds, and motions of our bodies, barely by a thought or preference of the mind. This power which the mind has thus to order the consideration of any *idea*, or the forbearing to consider it; or to prefer the Motion of any part of the Body to its Rest, and *vice versa* in any particular instance, is that we call the *Will*. The actual exercise of that power, is that which we call *Volition* or *Willing* :

The forbearance or performance of that Action, consequent to such order or command of the mind, is called *Voluntary* : and whatsoever Action is performed without such a thought of the mind, is called *Involuntary*.

The Power of Perception is that we call the *Understanding*. *Perception*, which we make the Act of the Understanding, is of *three* sorts. *First*, The Perception of *ideas* in our minds. *Secondly*, The Perception of the Signification of Signs. *Thirdly*, The Perception of the Agreement or Disagreement of any distinct *ideas*. These powers of the mind, *viz.* of perceiving and preferring are usually called by another name; and the ordinary way of speaking is that the Understanding and Will are two *faculties* of the mind. A word proper enough, if it be used so as not to breed any confusion in

mens thoughts, by being supposed, (as I suspect it has been) to stand for some real Beings in the Soul that performs those actions of Understanding and Volition.

From the consideration of the Extent of the power of the mind, over the actions of the man, which every one finds in himself, arise the *ideas* of *Liberty* and *Necessity*: so far as a man has a power to think or not to think; to move or not to move according to the preference or direction of his own mind, so far is a man *free*. Where-ever any performance or forbearance are not equally in a man's power; where-ever doing or not doing will not equally follow upon the preference of his mind, there he is not *free*, tho' perhaps the action may be *voluntary*. So that the *idea* of *Liberty* is the *idea* of a power in any agent, to do or forbear any action according to the determination or thought of the mind, whereby either of them is preferred to the other; where either of them is not in the power of the agent to be produc'd by him, according to his volition, there he is not at liberty: that agent is under *Necessity*. So that *Liberty* cannot be where there is no *Thought*, no *Volition*, no *Will*: but there may be *Thought*, there may be *Will*, there may be *Volition* where there is no *Liberty*. Thus a *Tennis-ball*, whether in motion by the stroke of a racket, or lying still at rest, is not by any one taken to be a free Agent; because we conceive not

a *Tennis-ball* to think, and consequently not to have any Volition or Preference of Motion to Rest, or *vice versa*. So a man striking himself or his friend by a convulsive motion of his arm, which it is not in his power by Volition or the direction of his mind, to stop or forbear; no body thinks he has in this *Liberty*, every one pities him as acting by *Necessity* and *Constraint*. Again, suppose a man be carried whilst fast asleep into a room where is a person he longs to see, and be there lock'd fast in beyond his power to get out; he awakes, and is glad to see himself in so desirable company, which he stays willingly in; that is, prefers his staying to going away. Is not this stay voluntary? I think no body will doubt it, and yet being lock'd fast in, he is not at liberty to stay, he has not freedom to be gone. So that *Liberty* is not an *idea* belonging to Volition or Preferring; but to the person having the power of doing or forbearing to do, according as the mind shall chuse or direct.

As it is in the motions of the body, so it is in the thoughts of our minds: where any one is such that we have power to take it up, or lay it by according to the Preference of the mind, there we are at liberty. A waking man is not at liberty to think or not to think, no more than he is at liberty whether his body shall touch any other or no: but whether he will remove his contemplation from one *idea* to another, is many times in his

choice. And then he is in respect of his *ideas*, as much at liberty as he is in respect of bodies he rests on. He can at pleasure remove himself from one to another : but yet some *ideas* to the mind, like some motions to the body are such, as in certain circumstances it cannot avoid nor obtain their absence by the utmost effort it can use. Thus a man on the rack is not at liberty to lay by the *idea* of *Pain*, and entertain other contemplations.

Where-ever Thought is wholly wanting, or the power to act or forbear, according to the direction of Thought, there Necessity takes place. This in an agent capable of Volition, when the beginning or continuation of any action is contrary to the preference of his mind, is call'd *Compulsion* ; when the hindring or stopping any action is contrary to his Volition, it is called *Restraint*. Agents that have no Thought, no Volition at all, are in every thing necessary agents.

And thus I have in a short draught given a view of our *original ideas*, from whence all the rest are deriv'd, and of which they are made up. And which may be all reduc'd to these few primary and original ones, *viz. Extension, Solidity, and Mobility* which by our senses we receive from body : *Thinking* and the *power of moving*, which by reflection we receive from our minds. *Existence, Duration, Number*, which belong both to the one and to the other. By these I imagine might be

explain'd the nature of *Colours, Sounds, Tastes, Smells*, and all other *ideas* we have; if we had but faculties acute enough to perceive the several modify'd extensions and motions of these minute bodies which produce those several sensations in us.

C H A P. XXII.

Of Mixed Modes.

M*ixed Modes* are combinations of *simple ideas* of different kinds, (whereby they are distinguish'd from simple modes, which consist only of simple *ideas* of the same kind, put together by the mind) as *Virtue, Vice, a Lie, &c.* The mind being once furnish'd with simple *ideas*, can put them together in several compositions, without examining whether they exist so together in nature. And hence I think it is, that these ideas are called *Notions*, as if they had their original and constant existence more in the thoughts of men than in the reality of things: and to form such ideas it sufficed that the mind put the parts of them together, and that they were consistent in the understanding, without considering whether they had any real being. There are three ways whereby we get these complex ideas of *mixed Modes*.

First, By experience and observation of things

themselves: thus by seeing two men wrestle, we get the *idea* of wrestling.

Secondly, By *invention* or voluntary putting together of several simple *ideas* in our own minds; so he that first invented *Printing*, had an *idea* of it first in his mind, before it ever existed.

Thirdly, By *explaining* the names of actions we never saw, or notions we cannot see; and by enumerating all those *ideas* which go to the making them up. Thus the mixed Mode which the word *Lie* stands for, is made up of these simple *ideas*: First, *Articulate sounds*. Secondly, *Certain ideas in the mind of the speaker*. Thirdly, *Those words, the signs of these ideas*. Fourthly, *Those signs put together* by Affirmation or Negation, otherwise than the *ideas* they stand for, are in the mind of the speaker. Since languages are made, *complex ideas* are usually got by the explication of those terms that stand for them: for since they consist of simple *ideas* combined, they may by words standing for those simple *ideas* be represented to the mind of one who understands those words, though that combination of simple *ideas* was never offer'd to his mind by the real existence of things.

Mixed Modes have their *unity* from an act of the mind, combining those several simple *ideas* together, and considering them as one complex one: The *mark* of this union is one *name* given to that combination. Men seldom reckon any number

of *ideas* to make one complex one : but such collections as there be names for. Thus the *killing of an old man*, is as fit to be united into one *complex idea*, as that of *a father* : yet there being no name for it, it is not taken for a particular *complex idea* ; nor a distinct species of action, from that of killing any other man.

Those collections of *ideas* have names generally affix'd, which are of frequent use in conversation : in which cases men endeavour to communicate their thoughts to one another with all possible dispatch. Those others which they have seldom occasion to mention, they tie not together, nor give them names.

This gives the reason, why there are words in every language, which cannot be rendred by any one single word of another. For the fashions and customs of one nation, make several combinations of *ideas* familiar in one, which another had never any occasion to make. Such were, Ὀστροχισμὸς among the *Greeks*, *Proscriptio* among the *Romans*. This also occasions the *constant change* of languages ; because the change of custom and opinions, brings with it new combinations of *ideas*, which, to avoid long descriptions, have new names annex'd to them, and so they become *new species* of *mixed* modes.

Of all our simple *ideas*, those that have had most *mixed* modes made out of them, are *Thinking*, and

Motion; (which comprehend in them all *Action*) and *Power*, from whence these actions are conceiv'd to flow. For actions being the great business of mankind, it is no wonder if the several modes of *Thinking* and *Motion* should be taken notice of, the *ideas* of them observ'd and laid up in memory, and have names assign'd them. For without such *complex ideas* with names to them, men cou'd not easily hold any communication about them. Of this kind are the modes of actions distinguish'd by their *Causes*, *Means*, *Objects*, *Ends*, *Instruments*, *Time*, *Place*, and other circumstances; as also of the powers fitted for those actions: thus *Boldness* is the power to do or speak what we intend without fear or disorder: which power of doing any thing, when it has been acquir'd by the frequent doing the same thing, is that *idea* we call *Habit*: when forward and ready upon every occasion to break into action, we call it *Disposition*. Thus *Testiness*, is a disposition or aptness to be angry.

Power being the source of all action, the substances wherein these powers are, when they exert this power, are call'd *Causes*: and the substances there-upon produc'd, or the simple *ideas* introduc'd into any subject, *effects*. The efficacy whereby the new substance or *idea* is produc'd, is call'd in the subject exerting that power, *Action*; in the subject wherein any simple *idea* is chang'd, or produc'd, *Passion*: which efficacy in *intellectual agents*, we

can, I think, conceive to be nothing else but modes of Thinking and Willing: in *corporeal agents*, nothing else but modifications of motion. Whatever sort of action, besides these produces any effect; I confess my self to have no notion, or *idea* of. And therefore many words which seem to express some action, signifie nothing of the action, but barely the effect, with some circumstances of the subject wrought on, or cause operating. Thus *Creation, Annihilation*, contain in them no *idea* of the action or manner, whereby they are produc'd, but barely of the cause, and the thing done. And when a country-man says the cold *freezes water*, tho' the word *Freezing*, seem to import some action, yet it truly signifies nothing but the effect, *viz.* That water that was before *fluid*, is become *hard*, and *consistent*, without containing any *idea* of the action whereby it is done.

C H A P. XXIII.

Of our Complex Ideas of Substances.

THE mind observing several simple *ideas* to go constantly together, which being presum'd to belong to one thing, are call'd so united in one subject by one name, which we are apt afterward to talk of and consider as one simple *idea*, which indeed is a complication of many *ideas* to-

gether. We imagine not these simple *ideas* to subsist by themselves, but suppose some *Substratum*, wherein they subsist, which we call *Substance*. The *idea* of pure substance is nothing but the suppos'd, but unknown support of these qualities, which are capable of producing simple *ideas* in us.

The *ideas* of *particular Substances* are compos'd out of this obscure and general *idea* of Substance, together with such combinations of simple *ideas*, as are observ'd to exist together, and suppos'd to flow from the internal constitution, and unknown essence of that substance. Thus we come by the *ideas* of *Man, Horse, Gold, &c.* Thus the sensible qualities of *Iron*, or a *Diamond* make the complex *ideas* of those substances, which a Smith or a Jeweller commonly knows better than a philosopher.

The same happens concerning the operations of the mind, *viz. Thinking, Reasoning, &c.* which we concluding not to subsist by themselves, nor apprehending how they can belong to body, or be produc'd by it; we think them the actions of some other substance, which we call *Spirit*: of whose substance or nature we have as clear a notion as of that of body; the one being but the suppos'd *Substratum* of the simple *ideas* we have from without; as the other of those operations which we experiment in our selves within: so that the *idea* of *corporeal Substance* in matter, is as remote from our conceptions as that of *spiritual Substance*.

Hence we may conclude that he has the perfectest *idea* of any particular substance, who has collected most of those simple *ideas* which do exist in it : among which we are to reckon its *active powers*, and *passive capacities*, tho' not strictly *simple ideas*.

Secondary qualities for the most part serve to distinguish substances. For our senses fail us in the discovery of the *Bulk, Figure, Texture, &c.* of the minute parts of bodies on which their real constitutions and differences depend: and secondary qualities are nothing but powers with relation to our senses. The *ideas* that make our complex ones of corporeal substances, are of three sorts. *First*, The *ideas* of primary qualities of things, which are discover'd by our senses : such are *Bulk, Figure, Motion, &c.* *Secondly*, The sensible secondary qualities, which are nothing but powers to produce several *ideas* in us by our senses. *Thirdly*, The aptness we consider in any substance to cause, or receive such alterations of primary qualities, as that the substance so alter'd, should produce in us different *ideas*, from what it did before : and they are call'd *Active* and *Passive Powers*. All which, as far as we have any notice, or notion of them, terminate in *simple ideas*.

Had we senses acute enough to discern the minute particles of bodies, it is not to be doubted, but they would produce quite different *ideas* in us ;

as we find in viewing things with *microscopes*. Such bodies as to our naked eyes are colour'd and opaque, will through *microscopes* appear pellucid. *Blood* to the naked eye appears all red ; but by a good *microscope* we see only some red globules swimming in a transparent liquor.

The *infinite wise Author* of our beings has fitted our organs, and faculties to the conveniences of life and the business we have to do here : we may by our senses know and distinguish things so far as to accommodate them to the exigencies of this life. We have also insight enough into their admirable contrivances, and wonderful effects to admire, and magnifie the wisdom, power and goodness of their Author. Such a knowledge as this which is suited to our present condition, we want not faculties to attain ; and we are fitted well enough with abilities to provide for the conveniences of living.

Besides the complex *ideas* we have of material Substances ; by the simple *ideas* taken from the operations of our own minds, which we experiment in ourselves, as *Thinking, Understanding, Willing, Knowing*, &c. co-existing in the same substance, we are able to frame the complex *idea* of a *Spirit*. And this *idea* of an *immaterial substance*, is as clear as that we have of a *material*. By joining these with Substance, of which we have no distinct *idea*, we have the *idea* of a *Spirit* : and by putting together the *ideas* of coherent, solid parts, and power

of being mov'd, join'd with Substance, of which likewise we have no positive *idea*, we have the *idea* of *Matter*. The one is as clear and distinct as the other. The substance of *Spirit* is unknown to us; and so is the substance of *Body* equally unknown to us: two primary qualities or properties of *Body*, *viz.* *Solid coherent parts*, and *impulse*, we have distinct clear *ideas* of: so likewise have we, of two primary qualities or properties of *Spirit*, *Thinking* and a *power of Action*. We have also clear and distinct *ideas* of several qualities inherent in bodies, which are but the various modifications of the extension of cohering solid parts, and their motion. We have likewise the *ideas* of the several modes of *Thinking*, *viz.* *Believing*, *Doubting*, *Hoping*, *Fearing*, &c. as also of *Willing* and *Moving* the *Body* consequent to it.

If this notion of *Spirit* may have some difficulties in it, not easie to be explain'd, we have no more reason to deny or doubt of the *existence of Spirits*, than we have, to deny or doubt of the *existence of Body*: because the notion of *Body* is cumbred with some difficulties very hard, and perhaps impossible to be explain'd. The *divisibility in infinitum*, for instance, of any finite extension involves us whether we grant or deny it in consequences impossible to be explicated, or made consistent. We have therefore as much reason to be satisfied with our notion of *Spirit*, as with our notion of *Body*;

and the existence of the one, as well as the other. We have no other *idea* of the *Supream Being*, but a complex one of *Existence, Power, Knowledge, Duration, Pleasure, Happiness*, and of several other qualities, and powers which it is better to have than be without, with the addition of *infinite* to each of these.

In which complex *idea* we may observe that there is no simple one, bating *Infinity*, which is not also a part of our complex *idea* of other spirits; because in our *ideas*, as well of spirits as other things, we are restrain'd to those we receive from *Sensation* and *Reflection*.

C H A P. XXIV.

Of Collective Ideas of Substances.

Here are other *ideas* of Substances which may be call'd *Collective*, which are made up of many particular substances consider'd as united into one *idea*, as a *Troop, Army, &c.* which the mind makes by its power of composition. These *collective* ideas are but the artificial draughts of the mind bringing things remote, and independent into one view, the better to contemplate and discourse of them united into one conception, and signify'd by one name. For there are no things so

remote, which the mind cannot by this art of composition, bring into one *idea*, as is visible in that signified by the name *Universe*.

C H A P. XXV.

Of Relation.

THere is another set of *ideas* which the mind gets from the *comparing of one thing with another*. When the mind so considers one thing, that it does as it were bring it to, and set it by another, and carry its view from one to the other, this is *Relation* or *Respect*: and the denominations given to things intimating that Respect, are what we call *Relatives*, and the things so brought together *Related*. Thus when I call *Cajus, Husband*, or *Whiter*, I intimate some other person, or thing in both cases, with which I compare him. Any of our *ideas* may be the foundation of Relation.

Where languages have fail'd to give cor-relative names, there the Relation is not so easily taken notice of: as in *Concubine*, which is a Relative name, as well as *Wife*.

The *ideas* of Relation may be the same, in those men who have far different *ideas* of the things that are Related. Thus those who have different *ideas*, of *Man*, may agree in that of *Father*.

There is no *idea* of any kind, which is not capable of an almost infinite number of considerations, in reference to other things: and therefore this makes no small part of mens words and thoughts. Thus one single man may at once sustain the Relations of *Father, Brother, Son, Husband, Friend, Subject, General, European, Englishman, Islander, Master, Servant, Bigger, Less, &c.* to an almost infinite number; he being capable of as many Relations as there can be occasions of comparing him to other things in any manner of agreement, disagreement, or respect whatsoever.

The *ideas* of Relations are much *clearer* and more *distinct* than of the things related; because the knowledge of one simple *idea* is oftentimes sufficient to give me the notion of a Relation: but to the knowing of any substantial being, an accurate collection of sundry *ideas* is necessary.

C H A P. XXVI.

Of Cause and Effect, and other Relations.

THE *ideas* of *Cause* and *Effect*, we get from our observation of the *vicissitude* of things, while we perceive some qualities or substances begin to exist, and that they receive their existence from the due application and operation of other beings: that which *produces*, is the *Cause*; that

which is *produced* the *Effect*. Thus *Fluidity* in wax is the effect of a certain degree of heat, which we observe to be constantly produced by the application of such heat.

We distinguish the originals of things into two sorts.

First, When the thing is wholly made new, so that no part thereof did ever exist before, as when a new particle of matter doth begin to exist, which had before no being; 'tis called *Creation*.

Secondly, When a thing is made up of particles which did all of them before exist, but the thing so constituted of pre-existing particles, which altogether make up such a collection of simple *ideas*; had not any existence before, as this *Man*, this *Egg*, this *Rose*, &c. This, when referr'd to a substance, produced in the ordinary course of nature, by an internal principle, but set on work by some external agent, and working by insensible ways which we perceive not, is called *Generation*.

When the Cause is extrinſical, and the Effect produced by a sensible Separation or Juxta-position of discernible parts, we call it *Making*; and such are all artificial things. When any simple *idea* is produced, which was not in that subject before, we call it *Alteration*.

The denominations of things taken from *Time*, are for the most part only Relations. Thus when it is said that queen *Elisabeth* lived sixty-nine, and

reigned forty-five years, no more is meant, than that the duration of her existence was equal to sixty-nine, and of her government to forty-five annual revolutions of the sun : and so are all words answering, *How long*.

Young and *Old*, and other words of Time, that are thought to stand for positive *ideas*, are indeed Relative ; and intimate a Relation to a certain length of Duration, whereof we have the *idea* in our minds. Thus we call a Man Young or Old, that has lived little or much of that time that men usually attain to. This is evident from our application of these names to other things ; for a *Man* is called Young at Twenty, but a *Horse* Old, &c. The Sun and Stars we call not Old at all, because we know not what period God has set to that sort of Beings.

There are other *ideas*, that are truly *Relative*, which we signify by names, that are thought *Positive* and *Absolute* ; such as *Great* and *Little*, *Strong* and *Weak*. The things thus denominated are referred to some standards with which we compare them. Thus we call an *Apple* *Great*, that is bigger than the ordinary sort of those we have been used to. And a Man *Weak*, that has not so much strength or power to move as men usually have, or those of his own size.

C H A P. XXVII.

Of Identity and Diversity.

ANother occasion the mind takes of comparing, is the very *Being of Things*: when considering a thing as existing at any certain time, or place, and comparing it with it self as existing at any other time, &c. it forms the *ideas* of *Identity* and *Diversity*. When we see any thing in any certain time and place, we are sure, it is that very thing; and can be no other, how like soever it may be in all other respects.

We conceiving it impossible, that two things of the same kind should exist together in the same place, we conclude that whatever exists any where at the same time, excludes all of the same kind, and is there it self alone. When therefore we demand whether any thing be the *same*, or no, it refers always to something that existed such a time, in such a place, which it was certain at that instant was the same with it self, and no other.

We have *ideas* of three sorts of substances, *First*, *Of God*, Secondly, *Finite Intelligences*, Thirdly, *Bodies*.

First, God being Eternal, Unalterable, and every

where concerning his *Identity*, there can be no doubt.

Secondly, Finite Spirits having had their determinate time and place of beginning to exist, the Relation to that time and place will always determine to each its *Identity*, as long as it exists.

Thirdly, The same will hold of every particle of matter to which no addition or subtraction is made. These three exclude not one another out of the same place, yet each exclude those of the same kind, out of the same place.

The Identity and Diversity of *Modes* and *Relations* are determined after the same manner that Substances are : only the Actions of Finite Beings, as *Motion* and *Thought*, consisting in Succession, they cannot exist in different times and places as permanent Beings : for no motion or thought considered as at different times can be the same, each part thereof having a different beginning of existence.

From whence it is plain, that Existence it self is the *Principium Individuationis*, which determines a Being to a particular time and place, incommunicable to two Beings of the same kind. Thus, suppose an *Atom* existing in a determin'd time, and place ; it is evident that considered in any instant, it is the same with it self, and will be so, as long as its existence continues. The same may be said of two, or more, or any number of particles, whilst they continue together. The *Mass* will be the same

however jumbled: but if one atom be taken away, it is not the same mass.

In *Vegetables*, the identity depends not on the same mass, and is not applied to the same thing. The reason of this is the difference between an animate body, and mass of matter; *This* being only the cohesion of particles any how united; *The other*, such a disposition and organization of parts, as is fit to receive and distribute nourishment, so as to continue and frame the wood, bark, leaves, &c. (of an *Oak*, for instance) in which consists the vegetable life. That therefore which has such an organization of parts partaking of one common life, continues to be the same *Plant*, tho' that life be communicated to new particles of matter vitally united to the living plant. The case is not so much different in *Brutes*, but that any one may hence see what makes an *Animal*, and continues it the same.

The identity of the same *Man* likewise consists in a participation of the same continued life, in succeeding particles of matter vitally united to the same organized body.

To understand *Identity* aright, we must consider what *Idea* the word it is applied to stands for. It being one thing to be the same *Substance*, another the same *Man*, and a third the same *Person*.

An *Animal*, is a living organized body: and the same animal, is the same continued life communi-

cated to different particles of matter, as they happen successively to be united to that body, and our notion of *Man*, is but of a particular sort of Animal.

Person stands for an intelligent being, that reasons and reflects, and can consider it self the same thing in different times and places ; which it doth by that *Consciousness* that is inseparable from thinking. By this every one is to himself what he calls *Self*, without considering whether that *Self* be continu'd in the same, or divers substances. In this consists *Personal Identity*, or the sameness of a rational being : and so far as this consciousness extends backward to any past action, or thought, so far reaches the identity of that person. It is the same *Self* now, it was then : and it is by the same *Self*, with this present one, that now reflects on it, that that action was done.

Self is that conscious thinking thing, whatever substance it matters not, which is conscious of pleasure or pain, capable of happiness or misery ; and so is concerned for it self, as far as that consciousness extends. That with which the consciousness of this present thinking thing, can join it self, makes the same person, and is one self with it ; and so attributes to it self, and owns all the actions of that thing, as its own, as far as that consciousness reaches.

This *Personal Identity* is the object of reward

and punishment, being that by which every one is concerned for himself. If the *Consciousness* went along with the little finger, when that was cut off, it would be the same self that was just before concerned for the whole body.

If the same *Socrates*, waking and sleeping, did not partake of the same consciousness, they would not be the same *Person*. *Socrates* waking, could not be in justice accountable for what *Socrates* sleeping did, no more than one *Twin*, for what his brother *Twin* did, because their outsides were so like, that they could not be distinguished.

But suppose I wholly lose the memory of some parts of my life, beyond a possibility of retrieving them, so that I shall never be conscious of them again; am I not the *same Person* that did those actions, tho' I have now forgot them? I answer, that we must here take notice what the word *I* is applied to, which in this case is the man only: and the same man being presumed to be the same person, *I* is easily here suppos'd to stand also for the same person. But if it be possible for the same man, to have distinct incommunicable consciousness at different times, it is past doubt the same man would, at different times, make different persons. Which we see is the sense of mankind in the solemnest declaration of their opinions, human laws not punishing the madman for the sober man's actions, nor the sober man for what the madman did; thereby

making them two persons. Thus we say in *English*, such a one *is not himself*, or *is besides himself*, in which phrases it is insinuated, that *Self* is changed, and the *Self same Person* is no longer in that man.

But is not a man drunk or sober the same Person? why else is he punished for the same fact he commits when drunk, tho' he be never afterwards conscious of it? just as much the same person, as a man that walks, and does other things in his sleep, is the same person, and is as answerable for any mischief he shall do in it. Human laws punish both with a justice suitable to their way of knowledge: because in these cases they cannot distinguish certainly what is real, and what is counterfeit; and so the ignorance in drunkenness or sleep is not admitted as a plea. For tho' punishment be annexed to personality, and personality to consciousness; and the drunkard perhaps is not conscious of what he did; yet human judicatures justly punish him, because the fact is proved against him; but want of consciousness cannot be proved for him. But in the great day wherein the *Secrets of all Hearts shall be laid open*, it may be reasonable to think no one shall be made to answer for what he knows nothing of, but shall receive his doom, his *own Conscience accusing*, or else *excusing him*.

To conclude, whatever substance begins to exist, it must during its existence be the same: whatever compositions of substances begin to exist, during

the union of those substances, the concrete must be the same. Whatsoever mode begins to exist, during its existence it is the same: and so if the composition be of distinct substances, and different modes, the same rule holds. Whence it appears that the difficulty or obscurity that has been about this matter, rather arises from *names ill us'd*, than from any *obscurity in the things* themselves. For whatever makes the specifick *Idea*, to which the name is applied, if that *Idea* be steadily kept to, the distinction of any thing into the *same*, and *divers*, will easily be conceived, and there can arise no doubt concerning it.

C H A P. XXVIII.

Of other Relations.

ALL simple *Ideas*, wherein are parts or degrees, afford an occasion of comparing the subjects wherein they are to one another in respect of those simple *Ideas*. As *Whiter, Sweeter, More, Less, &c.* these depending on the equality and excess of the same simple *Idea*, in several subjects may be called, *Proportional Relations*.

Another occasion of comparing things is taken from the circumstances of their origine, as *Father, Son, Brother, &c.* these may be called *Natural Relations*.

Sometimes the foundation of considering things, is some act whereby any one comes by a moral right, power, or obligation to do something : such are *General, Captain, Burgher* ; these are *Instituted*, and *Voluntary Relations*, and may be distinguished from the *Natural*, in that they are alterable and separable from the persons to whom they sometimes belonged, tho' neither of the substances so related be destroyed. But natural relations are not alterable, but are as lasting as their subjects.

Another relation is the conformity or disagreement of mens voluntary actions to a rule to which they are referred, and by which they are judged of : these may be called *Moral Relations*. It is this conformity or disagreement of our actions to some law (whereby good or evil is drawn on us from the will and power of the law-maker, and is what we call *Reward* or *punishment*) that renders our actions morally good, or evil.

Of these moral *Rules* or *Laws* there seem to be three sorts with their different enforcements. *First*, the *Divine Law*. Secondly, *Civil Law*. Thirdly, *The Law of Opinion* or *Reputation*. By their relation to the first, our actions are either *Sins* or *Duties* : to the second, *Criminal* or *Innocent* : to the third *Virtues* or *Vices*.

1st. By the *Divine Law*, I mean that law which God has set to the actions of men, whether promul-

gated to them by the light of nature, or the voice of Revelation.

That God has given a law to mankind, seems undeniable, since he has, *First*, A right to do it, we are his creatures. *Secondly*, Goodness and wisdom to direct our actions to what is best. *Thirdly*, Power to enforce it by reward, and punishment of infinite weight, and duration. This is the only true touchstone of moral rectitude, and by which men judge of the most considerable moral good or evil of their actions: that is, whether as duties or sins they are like to procure them happiness or misery from the hands of the Almighty.

2dly. The *Civil Law*, is the rule set by the Commonwealth, to the actions of those that belong to it. This law no body over-looks; the rewards and punishments being ready at hand to enforce it, extending to the protecting or taking away of life, liberty, and estate of those who observe or disobey it.

3dly. The law of Opinion or Reputation. *Virtue* and *Vice* are names supposed every where, to stand for actions in their own nature, Right and Wrong. As far as they are really so applied, they so far are co-incident with the divine law. But it is visible that these names in the particular instances of their application, through the several nations and societies of men, are constantly attributed only to such actions as in each country and society, are in reputation or discredit. So that the measure

of what is every where called and esteemed Virtue and Vice, is the approbation or dislike, praise or blame, which by a tacit consent establishes it self in the societies and tribes of men in the world; whereby several actions come to find credit or disgrace amongst them, according to the judgment, maxims, or fashions of the place.

That this is so, appears hence: that tho' that passes for Virtue in one place, which is elsewhere accounted Vice; yet every *Virtue* and *Praise*, *Vice* and *Blame* go together; *Virtue* is every where that which is thought praise-worthy: and nothing else but that which has the allowance of publick esteem, is called *Virtue*. These have so close an alliance, that they are often called by the same name.

'Tis true, Virtue and Vice do in a great measure every where correspond with the unchangeable rule of Right and Wrong, which the laws of God have established; because the observation of these laws visibly secures and advances the general good of mankind, and the neglect of them breeds mischief and confusion: and therefore men without renouncing all sense and reason, and their own interest, could not generally mistake in placing their commendation and blame on that side that deserved it not.

They who think not commendation and disgrace sufficient motives to engage men to accom-

moderate themselves to the opinions and rules of those with whom they converse, seem little skill'd in the history of mankind. The greatest part whereof govern themselves chiefly by this *law of Fashion*.

The penalties that attend the breach of God's laws are seldom seriously reflected on, and those that do reflect on them, entertain thoughts of future reconciliation. And for the punishment due from the laws of the common-wealth, men flatter themselves with the hopes of impunity : but no man escapes censure and dislike who offends against fashion ; nor is there one of ten thousand stiff and insensible enough, to bear up under the constant dislike and condemnation of his own club.

Morality then is nothing but a relation to these laws or rules ; and these rules being nothing but a collection of several simple *ideas* ; the conformity thereto is but so ordering the action, that the simple *ideas* belonging to it, may correspond to those which the law requires. By which we see how moral beings, and notions are founded on, and terminated in the simple *ideas* of sensation and reflection. For example, let us consider the complex *idea* signified by the word *Murder*. First from reflection, we have the *ideas* of *Willing*, *Considering*, *Purposing*, *Malice*, &c. Also of *Life*, *Perception*, and *Self-Motion*. Secondly from sensation, we have the *ideas* of *man*, and of some action where-

by we put an end to that perception and motion in the man, all which simple *ideas*, are comprehended in the word *Murder*.

This collection of simple *ideas* being found to agree or disagree with the esteem of the country I have been bred in, and to be held worthy of praise or blame, I call the action *Virtuous*, or *Vicious*. If I have the will of a Supreme Invisible Law-maker for my rule, then, as I suppose the action commanded or forbidden by *God*, I call it Good or Evil, *Sin* or *Duty*: if I compare it with the Civil-Law of my Country, I call it *Lawful* or *Unlawful*, a Crime or no Crime.

Moral actions may be considered two ways.

First, as they are in themselves a collection of simple *ideas*, in which sense they are positive absolute *ideas*.

Secondly, As *Good* or *Bad*, or *Indifferent*: in this respect they are *Relative*, it being their conformity or disagreement with some rule that makes them be so. We ought carefully to distinguish between the positive *idea* of the action, and the reference it has to a rule: both which are commonly comprehended under one name, which often occasions confusion, and misleads the judgment.

Thus the taking from another what is his, without his consent, is properly called *Stealing*: but that name being commonly understood to signify also the moral pravity of the action, men are apt to

condemn whatever they hear called *Stealing* as an ill action, disagreeing with the rule of Right. And yet the private taking away his sword from a madman to prevent his doing mischief, tho' it be properly denominated *Stealing*, as the name of such a *mixed Mode*, yet when compared to the law of God, it is no sin or transgression, tho' the name *Stealing* ordinarily carries such an intimation with it.

It would be infinite to go over all sorts of Relations; I have here mentioned some of the most considerable, and such as may serve to let us see from whence we get our *ideas* of Relations, and wherein they are founded.

C H A P. XXIX.

Of clear, obscure, distinct and confused ideas.

HAVING shewn the original of our *ideas*, and taken a view of their several sorts: I shall offer some few other considerations concerning them. The first is, that some are *clear*, others *obscure*: some *distinct*, and others *confused*.

Our simple *ideas* are clear, when they are such as the objects themselves from whence they were taken, did in a well-ordered sensation or perception present them. Whilst the memory retains

them thus, and can produce them so to the mind when it has occasion to consider them, they are clear *ideas*.

Our *complex ideas* are clear when the *ideas* that go to their composition are clear : and the number and order of those simple *ideas*, that are their ingredients, is determinate and certain.

The cause of *Obscurity* in simple *ideas* seems to be either dull organs, or slight impressions made by the objects, or a weakness in the memory, not able to retain them as receiv'd.

A *distinct idea* is that wherein the mind perceives a difference from all other : and a *confused*, is such an one as is not sufficiently distinguishable from another from which it ought to be different. Obscurity is oppos'd to clearness, confusion to distinctness.

This confusion incident to ideas, is only in reference to their names. For every idea a man has being visibly what it is, and distinct from all other ideas but it self, that which makes it *confus'd* is, when it is such that it may as well be called by another name as that which it is expressed by, the difference which keeps the things distinct, and makes some of them to belong rather to the one, and some of them to the other of those names being left out ; and so the distinction which was intended to be kept up by these different names is quite lost.

Confusion is occasioned chiefly by the following defaults.

First, When any *complex idea* (for it is *complex ideas* that are most liable to confusion) is made up of too small a number of simple *ideas*, and such as are common to other things: whereby the differences that make it deserve a different name, are left out. Thus an *idea* of a *Leopard* being conceived only as a spotted beast, is confused; it not being thereby sufficiently distinguished from a *Panther*, and other sorts of beasts that are spotted. Where the *ideas* for which we use different terms, have not a difference answerable to their distinct names, and so cannot be distinguished by them, there it is that they are truly confus'd.

Secondly, When the *ideas* are so jumbled together in the complex one, that it is not easily discernible, whether it more belongs to the name given it, than to any other. We may conceive this confusion by a sort of pictures usually shewn, wherein the colours mark out very odd and unusual figures, and have no discernible order in their position. This, when said to be the picture of a *Man* or *Caesar*, we reckon confused, because it is not discernible in that state, to belong more to the name *Man* or *Caesar*, than to the name *Baboon* or *Pompey*. But when a cylindrical mirror rightly placed, hath reduced those irregular lines on the table, into their due order and proportion, then

the eye presently sees that it is a *Man* or *Caesar*; that is, that it belongs to those names, and is sufficiently distinguishable from a *Baboon* or *Pompey*; that is, from the *ideas* signified by those names.

Thirdly, When any one of our *ideas* signified by a name is uncertain and undetermined. Thus he that puts in, or leaves out an *idea* out of his complex one of *Church* or *Idolatry*, every time that he thinks of either, and holds not steady to any one precise combination of *ideas*, that makes it up, is said to have a confus'd *idea* of *Church* or *Idolatry*. Confusion always concerns two *ideas*, and those most, which most approach one another. To avoid confusion therefore we ought to examine what other it is in danger to be confounded with, or which it cannot easily be separated from; and that will be found an *idea* belonging to another name, and so should be a different thing, from which yet it is not sufficiently distinct, and so keeps not that difference from that other *idea* which the different name imports.

It is to be observed that our *complex ideas* may be very clear and distinct in one part, and very obscure and confused in another. Thus in *Chiliaedrum*, or Body of a *Thousand Sides*, the *idea* of the figure may be confused, tho' that of the number be very distinct: we can discourse and demonstrate concerning that part of this *complex idea* which depends on the number *Thousand*; tho' it

is plain we have no precise *idea* of its figure, so as to distinguish it by that from one that has but Nine Hundred Ninety-nine sides. The not observing this, causes no small error in mens thoughts, and confusion in their discourses.

C H A P. XXX.

Of Real and Fantastical Ideas.

OUR *ideas* in reference to things from whence they are taken, or which they may be supposed to represent, come under a *Threefold* distinction, and are, First, either *Real* or *Fantastical*. Secondly, *Adequate* or *Inadequate*. Thirdly, *True* or *False*.

By *real ideas* I mean such as have a foundation in nature, such as have a conformity with the real being and existence of things, or with their *Archetypes*.

Fantastical are such as have no foundation in nature, nor any conformity with that reality of being, to which they are referred as to their *Archetypes*. By examining the several sorts of *ideas* we shall find, that, First, our *simple ideas* are all real; not that they are images or representations of what does exist, but as they are the certain effects of powers in things without us, ordained by our Maker, to produce in us such sensations: they

are real *ideas* in us, whereby we distinguish the qualities that are really in things themselves.

Their reality lies in the steady correspondence they have with the distinct constitutions of real beings. But whether they answer to those constitutions as to *Causes* or *Patterns* it matters not ; it suffices that they are constantly produced by them.

Complex ideas being arbitrary combinations of *simple ideas* put together, and united under one general name, in forming of which the mind uses its liberty ; we must enquire which of these are real, and which imaginary combinations, and to this I say, that,

First, Mixed modes and relations having no other reality than what they have in the minds of men : nothing else is required to make them real, but a possibility of existing conformable to them. These *ideas* being themselves *Archetypes*, cannot differ from their *Archetypes*, and so cannot be chimerical ; unless any one will jumble together in them inconsistent *ideas*. Those indeed that have names assigned them in any language, must have a conformity to the ordinary signification of the name that is given them, that they may not be thought fantastical.

Secondly, Our complex *ideas* of Substances being made, in reference to things existing without us, whose representations they are thought, are no farther real, than as they are such combinations of

simple ideas, as are really united, and co-exist in things without us. Those are fantastical which are made up of several *ideas*, that never were found united, as *Centaur*, &c.

C H A P. XXXI.

Of Ideas Adequate or Inadequate.

REAL *ideas* are either *Adequate* or *Inadequate* ; *First*, *Adequate*, which perfectly represent those Archetypes which the mind supposes them taken from, and which it makes them to stand for. *Secondly*, *Inadequate*, which are such as do but partially or incompletely represent those Archetypes to which they are referred : whence it appears.

First, That all our *simple ideas* are *Adequate* ; for they being but the effects of certain powers in things fitted and ordained by God, to produce such sensations in us, they cannot but be correspondent and adequate to such powers, and we are sure they agree to the reality of things.

Secondly, Our *complex ideas of modes* being voluntary collections of *simple ideas*, which the mind puts together without reference to any real Archetypes, cannot but be *Adequate ideas*. They are referred to no other pattern, nor made by any original, but the good-liking and will of him that makes the combination. If indeed one would confirm his *ideas*, to those which are formed by another

person, they may be wrong or *Inadequate*, because they agree not to that which the mind designs to be their archetype and pattern. In which respect only, any *ideas* of modes can be wrong, imperfect, or inadequate.

Thirdly, Our *ideas of Substances*, have in the mind a double reference: *First*, They are sometimes referred to a supposed real essence, of each species of things. *Secondly*, They are designed for representations in the mind of things that do exist, by *ideas* discoverable in them: in both which respects they are *Inadequate*.

First, If the names of Substances stand for things, as supposed to have certain real essences, whereby they are of this or that species, (of which real essences men are wholly ignorant and know nothing) it plainly follows that the *ideas* they have in their minds, being referred to real essences, as *Archetypes* which are unknown, they must be so far from being Adequate, that they cannot be supposed to be any representation of them at all. Our complex *ideas* of Substances are, as have been shewn, nothing but certain collections of simple *ideas* that have been observed, or supposed constantly to exist together. But such a complex *idea* cannot be the real essence of any Substance: for then the properties we discover in it would be deducible from it, and their necessary connexion with it be known, as all the properties

of a *Triangle* depend on, and are deducible from the complex *idea* of *Three Lines including a Space* : but it is certain that in our complex *ideas* of Substances, are not contained such *ideas* on which all the other qualities that are to be found in them depend.

Secondly, Those that take their *ideas* of Substances from their sensible qualities, cannot form Adequate *ideas* of them : because their qualities and powers are so various, that no man's complex *idea* can contain them all. Most of our simple *ideas*, whereof our complex ones of Substances do consist, are powers which being relations to other Substances ; we cannot be sure we know all the powers, till we have tryed what changes they are fitted to give and receive from other Substances, in their several ways of application : which being not possible to be tryed upon one body, much less upon all, it is impossible we should have Adequate *ideas* of any Substance, made of a collection of all its properties.

C H A P. XXXII.

Of True and False Ideas.

TRUTH and *Falshood* in propriety of speech belong only to propositions ; and when *ideas* are termed *True* or *False*, there is some secret or tacit proposition, which is the foundation of that

denomination. Our *ideas* being nothing but *Appearances* or *Perceptions* in the mind, can in strictness of speech no more be said to be true or false, than single names of things can be said to be true or false. The *idea* of *Centaur* has no more falshood in it, when it appears in our minds, than the name *Centaur* when it is pronounced or writ on paper. For truth or falshood lying always in some affirmation or negation, our *ideas* are not capable any of them, of being false, till the mind passes some judgment on them; that is, affirms or denies something of them. In a *metaphysical* sense they may be said to be true, that is, to be really such as they exist; tho' in things called true, even in that sense, there is perhaps a secret reference to our *ideas*, look'd upon as the standards of that truth; which amounts to a *mental proposition*.

When the mind refers any of its *ideas* to any thing extraneous to it, they are then capable of being true or false: because in such a reference the mind makes a tacit supposition of their conformity to that thing; which supposition, as it is true or false, so the *ideas* themselves come to be denominated. This happens in these cases:

First, When the mind supposes its *idea*, conformable to that in other mens minds; called by the same name, such as that of *Justice*, *Virtue*, &c.

Secondly, When the mind supposes any *idea* conformable to some real existence. Thus that of

Man is true, that of *Centaur* false, the one having a conformity to what has really existed ; the other not.

Thirdly, When the mind refers any of its *ideas* to that real constitution, and essence of any thing whereon all its properties depend : and thus the greatest part, if not all our *ideas of Substances*, are false.

As to the *First*, When we judge of our *ideas* by their conformity to those of other men, they may be any of them false. But simple *ideas* are least liable to be so mistaken ; we seldom mistake *Green* for *Blue*, or *Bitter* for *Sweet* ; much less do we confound the names belonging to different senses, and call a *Colour* by the name of a *Taste*. Complex *ideas* are much more liable to falshood in this particular : and those of Mixed Modes more than Substances. Because in Substances their sensible qualities serve for the most part to distinguish them clearly : but in Mixed Modes we are more uncertain, and we may call that *Justice*, which ought to be called by another name. The reason of this is, that the abstract *ideas* of Mixed Modes, being mens voluntary combinations of such a precise collection of simple *ideas*, we have nothing else to refer our *ideas* of Mixed Modes as standards to ; but the *ideas* of those who are thought to use names in their proper significations : and so as our *ideas* conform or differ from them, they pass for true or false.

As to the *Second*, When we refer our *ideas* to the real existence of things, none can be termed false, but our complex *ideas* of Substances. For our simple *ideas* being nothing but perceptions in us answerable to certain powers in external objects, their truth consists in nothing but such appearances, as are produced in us suitable to those powers: neither do they become liable to the imputation of falshood, whether we judge these *ideas* to be in the things themselves, or no. For God having set them as marks of distinguishing things, that we may be able to discern one thing from another; and thereby chuse them as we have occasion: it alters not the nature of our simple *ideas*, whether we think the *idea* of *Blue* (for instance) to be in the *Violet* it self, or in the mind only: and it is equally from that appearance to be denominated *Blue*, whether it be that real colour, or only a peculiar texture in it, that causes in us that *idea*: since the name *Blue* notes properly nothing but that mark of distinction, that is in a *Violet*, discernible only by our eyes, whatever it consists in.

Neither would our simple *ideas* be *false*, if by the different structure of our organs it were so ordered, that the same object should produce in several mens minds different *ideas*. For this could never be known, since objects would operate constantly after the same manner. It is most probable nevertheless, that the *ideas* produced by the same

objects in different mens minds, are very near and undiscernibly like. Names of simple *ideas* may be mis-applied, as a man ignorant in the *English* tongue may call *Purple, Scarlet* : but this makes no falsehood in the *ideas*.

Complex *ideas* of modes cannot be false in reference to the essence of any thing really existing ; because they have no reference to any pattern existing, or made by nature.

Our complex *ideas* of Substances, being all refer'd to patterns in things themselves, may be false. They are so, *First*, When look'd upon as representations of the unknown essences of things. *Secondly*, When they put together simple *ideas* which in the real existence of things, have no union : as in *Centaur*. *Thirdly*, When from any collection of simple *ideas*, that do always exist together, there is separated by a direct negation any one simple *idea*, which is constantly joined with them. Thus, if from extension, solidity, fixedness, malleableness, fusibility, &c. we remove the colour observed in *Gold*.

If this *idea* be only left out of the complex one of *Gold*, it is to be looked on as an inadequate and imperfect, rather than a false one : since, tho' it contains not all the simple *ideas*, that are united in nature : yet it puts none together, but what do really exist together.

Upon the whole, I think that our *ideas* as they

are considered by the mind, either in reference to the proper signification of their names, or in reference to the reality of things, may more properly be called *Right* or *Wrong ideas*, according as they agree or disagree to those patterns to which they are referred. The *ideas* that are in mens minds simply considered, cannot be wrong, unless *complex ideas*, wherein inconsistent parts are jumbled together. All other *ideas* are in themselves right, and the knowledge about them right, and true knowledge. But when we come to refer them to any patterns, or archetypes, then they are capable of being wrong, as far as they disagree with such archetypes.

C H A P. XXXIII.

Of the Association of ideas.

TH E R E is scarce any one that does not observe something that seems odd to him, and is in it self really extravagant in the opinions, reasonings, and actions of other men. The least flaw of this kind, if at all different from his own, every one is quick-sighted enough to espy, and forward to condemn in another, tho' he be guilty of much greater unreasonableness in his own tenets and conduct, which he never perceives, and will very hardly be convinc'd of.

This sort of unreasonableness is usually imputed to Education and Prejudice, and for the most part truly enough; tho' that reaches not the bottom of the disease, nor shews distinctly enough whence it rises, or wherein it lies. Education is often rightly assigned for the cause; and prejudice is a good general name for the thing itself; but yet I think he ought to look a little farther who would trace it to the root it springs from, and so explain it, as to shew whence this flaw has its original in very sober and rational minds, and wherein it consists. For this being a weakness to which all men are liable, and a taint which universally infects mankind, the greater care should be taken to lay it open.

Some of our *ideas* have a natural correspondence and connexion one with another: it is the office and excellency of our reason to trace these, and hold them together in that union and correspondence which is founded in their peculiar beings. Besides this, there is another connexion of *ideas* wholly owing to chance or custom: *ideas* that in themselves are not at all of kin, come to be so united in some mens minds, that 'tis very hard to separate them; they always keep company, and the one no sooner comes into the understanding, but its associate appears with it; and if they are more than two, the whole gang always inseparable shew themselves together. This strong combina-

tion of *ideas* not ally'd by nature, the mind makes in it self either voluntarily, or by chance: and hence it comes in different men to be very different, according to their different *Inclinations, Educations, Interests, &c.* Custom settles habits of Thinking in the Understanding as well as of Determining in the Will, and of motions in the Body; all which seem to be but trains of motion in the Animal Spirits, which once set a going, continue on in the same steps they have been us'd to; which by often treading are worn into a smooth path, and the motion in it becomes easie, and, as it were, natural. As far as we can comprehend Thinking, thus *ideas* seem to be produced in our minds; or if they are not, this may serve to explain their following one another in an habitual train, when once they are put into that track, as well as it does to explain such motions of the Body.

This connexion in our minds of *ideas* in themselves loose and independent one of another, is of so great force to set us awry in our actions, as well moral as natural, passions, reasonings, and notions themselves, that perhaps there is not any one thing that deserves more to be look'd after. Thus the *ideas* of *Goblins* and *Sprights* have really no more to do with Darknes than Light; yet let but a foolish Maid inculcate these often on the mind of a Child, and raise them there together, possibly he

shall never be able to separate them again so long as he lives; but Darkness shall ever afterwards bring with it those frightful *ideas*. A man has suffer'd pain or sickness in any place; he saw his friend die in such a room; tho' these have in nature nothing to do one with another, yet when the *idea* of the *place* occurs to his mind, it brings that of the Pain and Displeasure with it, he confounds them in his mind, and can as little bear the one as the other.

Intellectual Habits and Defects this way contracted are not less frequent and powerful, tho' less observed. Let the *ideas* of *Being* and *Matter* be strongly joined either by Education or much Thought, whilst these are still combined in the mind, what notions, what reasonings will there be about separate Spirits? Let Custom from the very Childhood have joined Figure and Shape to the *idea* of God, and what absurdities will that mind be liable to about the Deity? Let the *idea* of *Infallibility* be joined to any person, and these two constantly together possess the mind, and then one Body in two places at once, shall be swallowed for a certain truth, whenever that imagined Infallible Person dictates and demands assent without inquiry.

Some such wrong combinations of *ideas* will be found to establish the irreconcilable opposition between different sects of philosophy and religion :

for we cannot imagine every one of their followers to impose wilfully on himself, and knowingly refuse truth offer'd by plain Reason. Interest, tho' it does a great deal in the case, yet cannot be thought to work whole societies of men to so universal a perverseness, as that every one of them should knowingly maintain falshood: some at least must be allowed to do what all pretend to; *i. e.* to pursue truth sincerely. That therefore which captivates their reasons, and leads men of sincerity blindfold from common sense, will, when examined, be found to be, what we are speaking of: some independent *ideas*, are by education, custom, and the constant din of their party so coupled in their minds, that they always appear there together, and they can no more separate them in their thoughts, than if they were but one *idea*; and they operate as if they were so. This gives sense to jargon, demonstration to absurdities, and consistency to nonsense, and is the foundation of the greatest, I had almost said, of all the errors in the world: or if it does not reach so far, it is at least the most dangerous one, since so far as it obtains it hinders men from seeing and examining. The confusion of two different *ideas* which a customary connexion of them in their minds hath to them in effect made but one, cannot but fill mens heads with false views, and their reasonings with false consequences.

Having thus given an account of the *Original*

Sorts and *Extent* of our *ideas*, which are the instruments or materials of our knowledge, I should immediately proceed to shew, what use the understanding makes of them, and what knowledge we have by them. But upon a nearer approach I find that there is so close a connexion between *ideas* and *words*; and our abstract *ideas* and general *words* have so constant a relation one to another, that it is impossible to speak clearly and distinctly of our knowledge, which all consists in propositions, without considering first, the Nature, Use, and Signification of Language, which therefore must be the business of the next Book.

B O O K III.

C H A P. I.

Of Words or Language in General.

GOD having design'd man for a sociable creature, made him not only with an inclination, and under a necessity to have fellowship with those of his own kind, but furnished him also with *Language*, which was to be the great instrument and common tie of society. Man therefore had by nature his organs so fashioned, as to be fit to frame *articulate sounds*, which we call Words.

But besides articulate *Sounds* (which birds may be taught to imitate) it was further necessary that he should be able to use *these sounds* as signs of *Internal Conceptions*, and make them stand as marks of the *ideas* in his mind, whereby they might be made known to others.

But neither is it enough for the perfection of language, that sounds can be made signs of *ideas*, unless these can be made use of, so as to comprehend several particular things; for the multiplication of words would have perplexed their use, had every particular thing need of a distinct name to be signified by. To remedy this inconvenience,

Language had yet a farther improvement in the use of *General Terms*, whereby one word was made to mark a multitude of particular existences, which advantageous use of sounds was obtained only by the difference of the *ideas* they were made signs of. Those names becoming *general*, which are made to stand for *general ideas*; and those remaining *particular*, where the *ideas* they are used for are *particular*. There are other words which signify the *want* or *absence* of *ideas*, as *Ignorance*, *Barrenness*, &c. which relate to *positive ideas*, and signify their absence.

It is observable that the words which stand for Actions and Notions, quite removed from sense, are borrowed from sensible *ideas*, *v. g.* to Imagine, Apprehend, Comprehend, Understand, Adhere, Conceive, Instill, Disgust, Disturbance, Tranquility, &c. which are all taken from the Operations of Things Sensible, and applied to *modes of Thinking*. *Spirit* in its primary signification is no more than breath; *Angel* a messenger. By which we may guess what kind of notions they were, and whence derived; which filled the minds of the first beginners of languages, and how nature, even in the naming of things unawares, suggested to men the originals of all their knowledge: whilst to give names that might make known to others any operations they felt in themselves, or any other *ideas*, that came not under

their senses, they were fain to borrow words from the ordinary and known *ideas* of *Sensation*.

The better to understand the *Use* and *Force* of Language, as subservient to Knowledge, it will be convenient to consider,

First, To what it is that *Names* in the use of Language are immediately applied.

Secondly, Since all (except proper names) are *General*, and so stand not for this or that single thing, but for *Sorts* and *Ranks*: it will be necessary to consider what those sorts and kinds of things are; wherein they consist, and how they come to be made. This shall be considered in the following chapters.

C H A P. II.

Of the Signification of Words.

MAN, tho' he have great variety of thoughts, yet are they all within his own breast, invisible and hidden from others, nor can of themselves be made to appear. It was necessary therefore, for the comfort and advantage of Society, that man should find out some *External Signs*, whereby those invisible *ideas* might be made known to others. For which purpose nothing was so fit, either for plenty or quickness, as those *Articulate Sounds* he found himself able to make. Hence *words* came

to be made use of by men, as signs of their *ideas*: not upon the account of any *natural* connexion between articulate sounds, and certain *ideas*; for then there would be but one Language amongst all men; but by a voluntary imposition, whereby such a word is made *arbitrarily* the mark of such an *idea*. The use then of words, is to be sensible marks of our *ideas*; and the *ideas* they stand for, are their *proper* and *immediate Signification*: in which they stand for nothing more but the *ideas* in the mind of him that uses them. For when a man speaks to another, it is that he may be understood; that is, that his *sounds* may make known his *ideas* to the hearer.

Words being voluntary Signs cannot be imposed on things we know not: this would be to make them signs of nothing, sounds without significations. A man cannot make his words the signs either of *Qualities* in things, or of *Conceptions* in the mind of another, whereof he has no *ideas* in his own.

Words in all mens mouths (that speak with any meaning) stand for the *ideas* which those that use them have, and which they would express by them. Thus a *Child* that takes notice of nothing more in the metal he hears called *Gold*, than the *Yellow Colour*, calls the same *colour* in a Peacock's tail *Gold*. Another, that hath better observed, adds to shining Yellow, great Weight; and then the

found Gold stands, when he uses it, for a complex *idea* of a shining Yellow, and very weighty Substance.

Tho' words signifie properly nothing but the *ideas* in mens minds, yet they are in their thoughts secretly referred to *two* other things.

First, They suppose their words to be marks of *ideas*, in the minds of other men with whom they communicate; else they could not discourse intelligibly with one another: in this case men stand not to examine whether their *ideas* and those of other men be the same; they think it enough that they use the word in the common acceptation of that Language.

Secondly, They suppose their words to stand also for the *reality of things*.

Words then being immediately the signs of mens *ideas*, whereby they express their thoughts and imaginations to others, there arises by constant use such a connexion between certain *sounds* and the *ideas* they stand for; that the names heard almost as readily excite certain *ideas*, as if the objects themselves were present to the senses.

And because we examine not precisely the signification of words, we often in attentive consideration set our thoughts more on words than things: nay, some (because we often learn words before we know the *ideas* they stand for) speak several words no otherwise than *Parrots* do, without any

meaning at all. But so far as words are of use and signification, so far there is a constant connexion between the *sound* and *idea*; and a designation that the one stand for the other; without which application of them, they are nothing but insignificant noise.

Since then words signify only mens peculiar *ideas*, and that by an *arbitrary imposition*, it follows that every man has an inviolable liberty to make words stand for what *ideas* he pleases. It is true, common use by a tacit consent appropriates certain sounds to certain *ideas* in all Languages; which so far limits the signification of each sound, that unless a man applies it to the same *ideas*, he cannot *speak properly*: and unless a man's words excite the same *ideas* in the hearer, which he makes them stand for in speaking, he cannot *speak intelligibly*. But whatever be the consequence of any man's use of words, different either from their publick use, or that of the persons to whom he addresses them, this is certain, their signification in his use of them is limited to his *ideas*, and they can be signs of nothing else.

C H A P. III.

Of General Terms.

ALL things that exist being Particulars, it might be expected that words should be so too in their signification : but we find it quite contrary ; for most of the words that make all Languages are *General Terms*. This is the effect of Reason and Necessity, for,

First, It is impossible that every particular thing should have a distinct peculiar name, because it is impossible to have distinct *ideas* of every particular thing ; to retain its name, with its peculiar appropriation to that *idea*.

Secondly, It would be *useless*, unless all could be supposed to have these same *ideas* in their minds. For names applied to particular things, whereof I alone have the *ideas* in my mind, could not be significant or intelligible to another, who is not acquainted with all those particular things which had fallen under my notice.

Thirdly, It would be of no great *use* for the *Improvement of Knowledge* : which, tho' founded in particular things, enlarges it self by general views ; to which things reduced into sorts under general names, are properly subservient. In things where we have occasion to consider and discourse of *Indi-*

viduals, and particulars, we use *proper* names : as in *Persons, Countries, Cities, Rivers, Mountains, &c.* Thus we see that Jockeys have particular names for their horses, because they often have occasion to mention this or that particular horse when he is out of sight.

The next thing to be considered, is how *General Words* come to be made. Words become general by being made signs of *General ideas* : *ideas* become general by separating from them, the circumstances of Time, Place, or any other *ideas* that may determine them to this or that particular existence. By this way of *Abstraction*, they become capable of representing more *Individuals*, than one : each of which having a conformity to that abstract *idea*, is of that sort.

But it may not be amiss to trace our notions and names, from their beginning ; and observe by what degrees we proceed and enlarge our *ideas*, from our first infancy. It is evident that the first *ideas* *Children* get, are only particular, as of the *Nurse* or *Mother*, and the names they give them are confined to these *Individuals*. Afterwards observing that there are a great many other things in the world, that resemble them in shape, and other qualities, they frame an *idea* which they find those many particulars do partake in ; to that they give with others the name *Man* for example ; in this they make nothing *new*, but only leave out of the

complex *idea* they had of *Peter, James, Mary, &c.* that which is peculiar to each, and retain only what is common to all. And thus they come to have a general *name*, and a general *idea*.

By the same method they advance to more general names and notions. For observing several things that differ from their *idea* of *Man*, and cannot therefore be comprehended under that name, to agree with *Man* in some certain qualities, by retaining only those qualities, and uniting them into one *idea*, they have another more general *idea*, to which giving a name they make a *term* of a more comprehensive extension. Thus by leaving out the shape, and some other properties signified by the name *Man*, and retaining only a body with life, sense, and spontaneous motion; we form the *idea*, signified by the name *Animal*. By the same way the mind proceeds to *Body, Substance*, and at last to *Being, Thing*, and such universal Terms which stand for any *ideas* whatsoever. Hence we see that the whole mystery of *Genus* and *Species*, is nothing else but *abstract ideas* more or less comprehensive, with *names* annexed to them.

This shews us the reason why in defining words, we make use of the *Genus*: namely to save the labour of enumerating the several simple *ideas*, which the next general term stands for. From what has been said it is plain that *General* and *U-*

universal belong not to the *real* existence of things; but are inventions of the Understanding made by it for its own use, and concern only signs, either *words* or *ideas*.

It must be considered in the next place, what kind of signification it is that general words have. It is evident that they do not barely signify one particular thing: for then they would not be general terms, but proper names: neither do they signify a *Plurality*: for then *Man* and *Men* would signify the same thing; but that which they signify, is a *sort* of things, and this they do, by being made a sign of an *abstract idea* in the mind, to which *idea*, as things existing are found to agree, so they come to be ranked under that name, or to be of that sort. The *Essences* then of the sorts or species of things, are nothing but these *abstract ideas*.

It is not denied here that Nature makes things alike, and so lays the foundation of this sorting and classing: but the *sorts* or *species* themselves are the workmanship of Human Understanding: so that every distinct *abstract idea*, is a distinct *Essence*, and the names that stand for such distinct *ideas*, are the names of things essentially different. Thus *Oval*, *Circle*, *Rain* and *Snow* are essentially different. To make this clearer, it may not be amiss to consider the several significations of the word *Essence*.

First, It may be taken for the very being of any thing whereby it is, what it is ; thus the real internal, (but unknown) constitution in *Substances*, may be called their *Essence*. This is the proper signification of the word.

Secondly, In the *Schools* the word *Essence* has been almost wholly applied to the artificial constitution of *Genus* and *Species* ; it is true, there is ordinarily supposed a real constitution of the sorts of things : and it is past doubt there must be some real constitution, on which any collection of *simple ideas*, co-existing, must depend. But it being evident, that things are ranked into sorts, under names only as they agree to certain *abstract ideas*, to which we have annexed those names, the essence of each *Genus* or *Species*, is nothing but the *abstract idea*, which the name stands for ; this the word *Essence* imports in its most familiar use.

These two sorts of *Essence* may not unfitly be termed the one *Real*, the other *Nominal*. Between the nominal *Essence* and the name, there is so near a connexion, that the name of any sort of things, cannot be attributed to any particular being, but what has the *Essence* whereby it answers that *abstract idea*, whereof that name is the sign.

Concerning the real *Essences* of corporeal *Substances*, there are two opinions.

First, Some using the word *Essence* for they know not what, suppose a certain number of those *Es-*

ences, according to which, all natural things are made, and of which they equally partake, and do become of this or of that Species.

Secondly, Others look on all natural things to have a real, but unknown constitution of their insensible parts, from whence flow their sensible qualities, which serve us to distinguish them one from another; and according to which we rank them into sorts, under common denominations. The former supposition seems irreconcilable with the frequent production of monsters, in all the species of Animals: since it is impossible that two things partaking of the same real *Essence*, should have different *Properties*. But were there no other reason against it; yet the supposition of *Essences* which cannot be known, and yet the making them to be that which distinguisheth the species of things, is so wholly useless and unserviceable to any part of *Knowledge*, that that alone were sufficient to make us lay it by.

We may further observe that the nominal, and real *Essences* of *simple ideas* and *modes*, are always the same: but in *Substances* always quite different. Thus a figure including a space between three lines, is the real as well as nominal *Essence* of a triangle; it being that foundation from which all its properties flow, and to which they are inseparably annexed; but it is far otherwise in *Gold* or any other sort of *Substance*; it is the real consti-

tution of its insensible parts, on which depend all those Properties that are to be found in it ; which constitution since we know not, nor have any particular *idea* of, we can have no name that is the sign of it. But yet it is its *Colour, Weight, Fusibility*, and *Fixedness*, &c. which makes it to be *Gold*, or gives it a right to that name ; which is therefore its *nominal Essence*, since nothing can be called *Gold* but what has a conformity to that abstract complex *idea*, to which that name is annexed.

That Essences are but abstract *ideas*, may farther appear by their being held ingenerable and incorruptible. This cannot be true of the real constitution of things. All things in Nature (save the *Author* of it) are liable to change : their *real Essences* and Constitutions are destroyed and perish : but as they are *ideas* established in the mind, they remain immutable. For whatever becomes of *Alexander* or *Bucephalus*, the *ideas* of man and horse remain the same. By these means the Essence of a *Species* rests safe and entire, without the existence of one *Individual* of that kind.

It is evident then that this doctrine of the immutability of Essences proves them to be only abstract *ideas*, and is founded on the relation established between them and certain sounds, as signs of them, and will always be true, as long as the same name can have the same signification.

C H A P. IV.

Of the Names of Simple Ideas.

WORDS tho' they signifie nothing immediately, but the *ideas* in the mind of the Speaker; yet we shall find that the names of simple *Ideas*, mixed *Modes*, and natural *Substances* have each of them something peculiar. And,

First, The names of *simple Ideas* and *substances*, with the abstract *Ideas* in the Mind, intimate some *real Existence*, from which was derived their original pattern: but the names of *mixed Modes* terminate in the *idea* that is in the Mind.

Secondly, The names of *simple Ideas* and *Modes* signifie the *real* as well as *nominal* Essences of their species: the names of *substances* signifie rarely, if ever any thing, but barely the *nominal Essences* of those species.

Thirdly, The names of *simple Ideas* are not capable of *Definitions*; those of *complex Ideas* are: the reason of which I shall shew from the nature of our *ideas*, and the signification of *words*.

It is agreed that a *Definition* is nothing else but the shewing the meaning of one word, by several other, *not synonymous Terms*. The meaning of words being only the *ideas* they are made to stand

for; the meaning of any term is then shewed, or the word defined, when by other words the *idea* it is made the sign of, is as it were, represented or set before the view of another, and thus its signification ascertained. The names then of *simple ideas* are incapable of being defined, because the several terms of a Definition signifying several *ideas*, they can altogether by no means represent an *idea* which has no composition at all, and therefore a Definition, which is but the shewing of the meaning of one word, by several others not signifying each the same thing, can in the names of simple *ideas* have no place.

The not observing this difference in our *ideas*, has occasioned those *trifling* Definitions which are given us of some simple *ideas*: such as is that of *motion*, viz. *The Act of a Being in Power, as far forth as in Power.*

The Atomists who define Motion to be a *Passage* from one place to another, what do they more than put one synonymous word for another? For what is *Passage* other than a Motion? Nor will the successive application of the parts of the superficies of one body to those of another, which the *Cartesians* give us, prove a much better definition of Motion when well examined.

The Act of Perspicuous, as far forth as perspicuous, is another Peripatetick definition of a simple *idea*, which it is certain can never make the mean-

ing of the word *Light*, which it pretends to define, understood by a blind man. And when the *Cartesians* tell us, that *Light* is a great number of little globules striking briskly on the bottom of the eye; these words would never make the *idea* the word *Light* stands for, known to a man that had it not before.

Simple ideas then can only be got by the impressions objects make on our minds, by the proper *In-letts* appointed to each sort. If they are not received this way, all the words in the world will never be able to produce in us the *ideas* they stand for. Words being sounds, can produce in us no other simple *ideas* than of those very sounds; nor excite any in us, but by that voluntary connexion which they have with some *ideas* which common use has made them signs of: and therefore he that has not before received into his mind by the proper In-lett the simple *idea*, which any word stands for, can never come to know the signification of that word, by any other words or sounds whatsoever.

But in *complex ideas* which consist of several simple ones, the case is quite otherwise; for words standing for those several *ideas* that make up the composition, may imprint complex *ideas* in the mind, that never were there before, and so make their names be understood. In them definitions take place. Thus the word *Rainbow*, to one who

knew all those colours, but yet had never seen that *Phaenomenon*, might, by enumerating the *Figure*, *Largeness*, *Position*, and *Order* of the *Colours*, be so well defined, that it might be perfectly understood.

The names of simple *Ideas*, *Substances*, and *mixed Modes* have also this difference, that those of *mixed Modes* stand for *ideas* perfectly arbitrary: Those of *Substances* are not perfectly so, but refer to a pattern, tho' with some latitude; and those of simple *ideas* are perfectly taken from the existence of things, and are not arbitrary at all.

The names of *simple modes* differ little from those of *simple ideas*.

C H A P. V.

Of the Names of Mixed Modes and Relations.

THE names of *mixed Modes* being general, stand for *abstract ideas* in the mind, as other general names do; but they have something peculiar which may deserve our attention.

And *First*, the *ideas* they stand for, or if you please the essences of the several species of *mixed Modes*, are made by the understanding; wherein they differ from those of *simple ideas*.

Secondly, They are made arbitrarily, without patterns, or reference to any real existence, where-

in they differ from those of *Substances*. The mind unites and retains certain collections, as so many distinct specifick *ideas*, whilst other combinations that as often in nature occur, and are as plainly suggested by outward things, pass neglected without particular names, or specifications.

The mind in forming those complex *ideas*, makes no new *idea*, but only puts together those which it had before, wherein it does *three* things. *First*, It chuses a certain number. *Secondly*, It gives them connexion, and combines them into one *idea*. *Thirdly*, It ties them together by a name; all this may be done before any one individual of that species of Modes ever existed: as the *ideas* of *Sacrilege* or *Adultery* might be framed, before either of them was committed; and we cannot doubt but law-makers have often made laws about species of Actions, which were only the creatures of their own understanding.

But tho' *mixed Modes* depend on the mind, and are made arbitrarily; yet they are not made at random, and jumbled together without any reason at all, but are always made for the convenience of communication, which is the chief end of language, and therefore such combinations are only made, as men have frequent occasion to mention. Thus men having joined to the *idea* of killing the *idea* of *Father* and *Mother*, and so made a distinct species from the killing a man's *Son* or *Neighbour*,

because of the different heinousness of the crime, and the distinct punishment due to it, found it necessary to mention it by a distinct name, which is the end of making that distinct combination.

In *mixed Modes* it is the *name* that seems to preserve their Essences, and to give them their lasting duration. The collection of *ideas* is made by the mind, but the name is as it were the *Knot* which ties them fast together: hence we seldom take any other for distinct species of *mixed Modes*, but such as are set out by names. We must observe that the names of *mixed Modes* always signify the real Essences of their species, which being nothing but the abstract complex *ideas*, and not referred to the real existence of things; there is no supposition of any thing more signified by any name of a *mixed Mode*, but barely that *complex idea* the mind it self has formed: which when the mind has formed, is all it would express by it, and is that on which all the properties of the *species* depend, and from which alone they flow; and so in these the *real* and *nominal* Essence is the same.

This also shews the reason why the *names* of *mixed Modes* are commonly got, before the *ideas* they stand for are perfectly known: because there being no species of these ordinarily taken notice of, but such as have names, and those species being *complex ideas* made arbitrarily by the mind, it is convenient, if not necessary, to know the names,

before we learn the *complex ideas* ; unless a man will fill his head with a company of abstract *complex ideas*, which others having no names for, he has nothing to do with, but to lay by, and forget again. In the beginning of languages it was necessary to have the *idea* before one gave it the *name* ; and so it is still, where a *new complex idea* is to be made, and a name given it. In *simple ideas* and *substances* I grant it is otherwise ; which being such *ideas* as have real existence and union in nature, the *ideas* or names are got, one before the other, as it happens.

What has been said here of *mixed Modes*, is with very little difference applicable to *Relations* also ; which since every man himself may observe, I may spare my self the pains to enlarge on.

C H A P. VI.

Of the Names of Substances.

THE common *names* of *Substances* stand for sorts as well as other general terms ; that is, for such *complex ideas*, wherein several particular Substances do, or might agree, by virtue of which they are capable to be comprehended in one common conception, and be signified by one name ; I say, *do* or *might agree*, for tho' there be but one

Sun existing, yet the *idea* of it being abstracted, is as much a *sort*, as if there were as many suns as there are stars.

The measure and boundary of each sort whereby it is constituted that *particular sort*, and distinguished from others, is what we call its *Essence*; which is nothing but that abstract *idea* to which that name is annexed, so that every thing contained in that *idea*, is essential to that sort. This I call *Nominal Essence*, to distinguish it from that real constitution of *substances*, on which this *Nominal Essence*, and all the properties of that sort depend, and may be called its *real Essence*: thus the *nominal Essence* of *Gold* is that *complex idea* the word *Gold* stands for, let it be for instance a *Body*, *Yellow*, *Weighty*, *Malleable*, *Fusible*, and *Fixed*: but its *real Essence* is the constitution of its insensible parts, on which those qualities, and all its other properties depend; which is wholly unknown to us.

That *Essence* in the ordinary use of the word relates to *Sorts*, appears from hence, that if you take away the abstract *ideas* by which we sort Individuals, and rank them under common names, then the thought of any thing essential to any of them instantly vanishes: we have no notion of the one without the other, which plainly shews their Relation. No property is thought essential to any Individual whatsoever, till the mind re-

fers it to some sort or *species* of Things, and then presently, according to the abstract *idea* of that sort, something is found essential; so that essential or not essential, relates only to our abstract *ideas*, and the names annexed to them, which amounts to no more but this, that whatever particular thing has not in it those qualities contained in the *abstract idea* which any general term stands for, cannot be ranked under that species, nor be called by that name; since that *abstract idea* is the very Essence of that *species*. Thus if the *idea* of *Body* with some people be bare Extension, or Space, then *Solidity* is not essential to *Body*: if others make the *idea*, to which they give the name *Body* to be Solidity and Extension; then Solidity is essential also to *Body*. That alone therefore is considered as essential, which makes a part of the *complex idea* the name of a Sort stands for, without which no particular thing can be reckoned of that sort, nor be entituled to that name.

Substances are distinguished into *Sorts* and *Species* by their *nominal Essence*; for it is that alone, that the name which is the mark of the Sort signifies: and the *species* of Things to us are nothing but the ranking them under distinct names, according to the *complex ideas* in *Us*, and not according to precise, distinct, *real Essences* in *Them*.

We cannot rank and sort Things by their *real Essences*, because we know them not: our facul-

ties carry us no farther in the Knowledge of Substances, than a collection of those sensible *ideas* we observe in them. But the internal Constitution whereon their properties depend, is utterly unknown to us. This is evident when we come to examine but the *stones* we tread on, or the *iron* we daily handle: we soon find that we know not their make, and can give no reason of the different qualities we find in them; and yet how infinitely these come short of the fine contrivances and unconceivable real Essences of *Plants* and *Animals*, every one knows. The workmanship of the All-wise and Powerful *God* in the great fabrick of the Universe, and every part thereof farther exceeds the comprehension of the most inquisitive and intelligent man, than the best contrivance of the most ingenious man, doth the conceptions of the most ignorant of rational creatures. In vain therefore do we pretend to range things into *sorts*, and dispose them into certain *Classes*, under names by their *real Essences*, that are so far from our discovery or comprehension.

But tho' the *nominal Essences* of Substances are made by the mind, they are not yet made so arbitrarily as those of mixed Modes. To the making of any *nominal Essence*, it is necessary,

First, That the *ideas* whereof it consists, have such an union as to make but one *idea*, how compounded soever.

Secondly, That the particular *ideas* so united be exactly the same, neither more or less: for if two abstract complex *ideas* differ either in *number* or *sorts* of their component parts, they make two different, and not one and the same Essence.

In the *First* of these, the mind in making its complex *ideas* of Substances, only follows *Nature*, and puts none together which are not supposed to have an union in nature. For men observing certain qualities always joined and existing together therein copy nature, and of *ideas* so united, make their complex ones of Substances.

Secondly, Tho' the mind in making its complex *ideas* of Substances, never puts any together that do not *really*, or are not supposed to co-exist: yet the number it combines depends upon the various care, industry or fancy of him that makes it. Men generally content themselves with some few obvious qualities, and often leave out others as material and as firmly united as those that they take in.

In Bodies organized and propagated by Seeds, as *Vegetables* and *Animals*, the *shape* is that which to us is the leading quality, and most characteristic part that determines the *species*: in most other bodies not propagated by seed, it is the *colour* we chiefly fix on, and are most led by. Thus where we find the colour of *Gold*, we are apt to imagine all the other qualities comprehended in our complex *idea* of *Gold*, to be there also.

Tho' the *nominal* Essences of Substances are all supposed to be copied from Nature, yet they are all, or most of them, very imperfect: and since the composition of those complex *ideas* is in several men very different, we may conclude that these boundaries of species are as *Men*, and not as *Nature* makes them; if at least there are in Nature any such prefixed bounds.

It is true, that many particular Substances are so made by Nature, that they have an agreement and likeness one with another, and so afford a foundation of being ranked into Sorts: but the *sorting* of things by us, being in order to naming and comprehending them under general terms, I cannot see how it can be properly said, that Nature sets the *boundaries* of the species of things. But if it be so, our *boundaries* of species, are not exactly conformable to Nature.

If the first sorting of Individuals depends on the mind of man, variously collecting the simple *ideas*, that make the *nominal* Essence of the lowest species; it is much more evident, that the more *comprehensive* *Classes*, called *Genera*, do so. In forming more general *ideas* that may comprehend different sorts, the mind leaves out those qualities that distinguish them, and puts into its new collection only such *ideas* as are common to several sorts. Thus by leaving out those qualities which are peculiar to Gold, Silver, &c. and retaining a complex *idea*,

made up of those that are common to each species, there is a new *Genus* constituted, to which the name *Metal* is annexed.

So that in this whole business of *Genera* and *Species*, the *Genus* or more comprehensive, is but a partial conception of what is in the *Species*, and the *Species* but a partial *idea* of what is to be found in each *Individual*. In all which there is no new thing made, but only more or less comprehensive signs, whereby we may be enabled to express in a few syllables great numbers of particular things, as they agree in more or less general conceptions, which we have framed to that purpose. If these *abstract general ideas* be thought to be compleat, it can only be in respect of a certain established relation between them, and certain names, which are made use of to signify them, and not in respect of any thing existing as made by Nature.

This is adjusted to the true end of Speech, which is to be the easiest and shortest way of communicating our notions. This is the proper business of *Genus* and *Species*: and this men do without any consideration of real essences, and substantial forms, which come not within the reach of our knowledge, when we think of those things; nor within the signification of our words when we discourse with others.

C H A P. VII.

Of Particles.

BESIDES words which are the names of *ideas* in the mind, there are others made use of to signify the *Connexion* that the mind gives to *ideas* or propositions one with another, and to intimate some particular *Action* of its own at that time relating to those *ideas*. This it does several ways; as *is, is Not*, are marks of the mind affirming or denying: besides which, the mind does in declaring its sentiments to others connect not only the parts of propositions, but whole sentences one to another with their several relations, and dependencies to make a coherent discourse.

The words signifying that connexion the mind gives to several affirmations and negations, that it unites in one continued Reasoning or Narration, are called *Particles*. And it is in the right use of these, that more particularly consists the clearness and beauty of a *Good Stile*. To express the dependence of his Thoughts and Reasonings one upon another, a man must have words to shew what connexion, restriction, distinction, opposition, emphasis, &c. he gives to each respective part of his discourse.

These cannot be understood rightly, without a clear view of the postures, stands, turns, limitati-

ons, exceptions, and several other thoughts of the mind : of these there are a great variety, much exceeding the number of Particles that most languages have to express them by ; for which reason it happens, that most of these Particles have divers, and sometimes almost opposite significations. Thus the particle *But* in *English*, has several very different significations ; as, *But to say no more* : here it intimates a stop of the mind in the course it was going, before it came to the end of it. *I saw but two Planets* : here it shews that the mind limits the sense to what is expressed with a Negation of all other : *You pray, but it is not that God would bring you to the true Religion, but that he would confirm you in your own*. The former of these intimates a supposition in the mind of something otherwise than it should be : the latter shews, that the mind makes a direct opposition between that and what goes before. *All Animals have sense, but a Dog is an Animal*. Here it signifies the connexion of the latter proposition with the former. To these, divers other significations of this Particle might be added, if it were my business to examine it in its full latitude.

I intend not here a full explication of this sort of Signs, the instances I have given in this one, may give occasion to reflect on their use and force in language, and lead us into the contemplation of several actions of our minds in discoursing,

which it has found a way to intimate to others by these *Particles*, some whercof constantly, and others in certain constructions, have the sense of a whole sentence contained in them.

C H A P. VIII.

Of abstract and concrete Terms.

THE Mind, as has been shewn, has a power to *abstract* its *idea*, whereby the Sorts of Things are distinguished: now each *abstract idea* being distinct, so that the one can never be the other, the mind will, by its intuitive knowledge perceive their difference; and therefore in propositions, no two whole *ideas* can ever be affirmed one of another: nor does the common use of language permit that any two abstract words or names of *abstract ideas*, should be affirmed one of another. All our affirmations are only in *Concrete*, which is the affirming one *abstract idea* to be joined to another: which abstract *ideas* in *Substances*, may be of any sort, tho' the most of them are of *Powers*: in all the rest these are little else but Relations.

All our simple *ideas* have *abstract* as well as *concrete* names, as *Whiteness* *White*, *Sweetness* *Sweet*, &c. The like also holds in our *ideas* of Modes and Relations, as *Justice* *Just*, *Equality* *Equal*, &c. But as to our *ideas* of Substances, we have very few abstract names at all. Those few that the

schools have forged, as *Animalitas*, *Humanitas*, &c. hold no proportion with the infinite number of names of substances, and could never get admittance into common use, or obtain the licence of publick approbation ; which seems to intimate the confession of all mankind, that they have no *ideas* of the real Essences of Substances, since they have not names for such *ideas*. It was only the doctrine of *substantial Forms*, and the confidence of mistaken Pretenders to a Knowledge they had not, which first coin'd, and then introduced *Animalitas*, *Humanitas*, and the like : which yet went very little farther than their own schools, and could never get to be current amongst understanding men.

C H A P. IX.

Of the Imperfection of Words.

TO examine the *Perfection* or *Imperfection* of Words, it is necessary to consider their use and end, which is twofold, *First*, to *record* our own thoughts : *Secondly*, to *communicate* our thoughts to others : the *First* is for the help of our own memories, whereby we do as it were talk to our selves : for this purpose any Words may serve the turn : words being *arbitrary signs*, we may use which we please for this purpose ; and there will be no Imperfection in them, if we constantly use the same *sign* for the same *idea*.

Secondly, As to *Communication* by Words; that too has a double use: *First*, Their *Civil Use*, which is such a Communication of thoughts and *ideas* by Words, as may serve in common Conversation and Commerce, about the ordinary Affairs and Conveniencies of civil Life. *Secondly*, The *philosophical* use of Words, by which I mean such an use of them, as may serve to convey the precise notions of things, and to express certain Truths in general Propositions, these two uses are very distinct, and a great deal less exactness will serve in the one, than in the other.

The end of Language in Communication is to be *understood*; that is, to excite by sounds in the *hearer*, the same *idea* which they stand for in the mind of the *speaker*. The doubtfulness and uncertainty of their signification, which is the imperfection we are here speaking of, has its cause more in the *ideas* themselves than in any incapacity in the *sounds* to signify them; for in that regard they are all equally perfect. That then which makes the difference, is the difference of *ideas* they stand for, which must be learned and retained by those, who would discourse together intelligibly. Now this is difficult in these cases,

First, Where the *ideas* they stand for are very complex. Hence the names of *mixed Modes* are liable to great uncertainty and obscurity in their signification. For here the *idea* being made up of

many parts, it is not easy to form and retain it exactly; of this sort chiefly are moral Words, which have seldom in two different men, the same precise signification.

Secondly, Where the *ideas* they stand for, have no certain connexion in nature, and therefore no settled *standard* to rectify and adjust them by. This again is the case of the names of *mixed Modes*, which are assemblages of *ideas* put together at pleasure. Common use indeed regulates the meaning of Words pretty well for common Conversation: but it is not sufficient to adjust them to philosophical discourses, there being scarce a name of any very *complex idea*, which in common use has not a great latitude; and is not made the sign of far different *ideas*.

The way of learning these names does not a little contribute to the doubtfulness of their signification. For we may observe that children are taught the names of simple *ideas*, and substances, by having the things shewn them; and then they repeat the name that stands for it; as *White, Sweet, Milk, Sugar, &c.* But in *mixed Modes* the sounds are learned first, and men are to learn afterwards their signification, by their own observation and industry, or the explication of others: which is the reason that these words are little more than *bare sounds* in the minds of most, because few are at the pains to settle their *ideas* and notions precisely;

and those which are, make them the signs of *ideas*, different from what others understand by them, which is the occasion of most disputes.

Thirdly, Where the signification of a word is referred to a *standard* which is not easily known : this is the case of the names of *substances*, which being supposed to stand for their *real Essences*, must needs be of uncertain application, because these *Essences* are utterly unknown ; and it will be impossible to know what is, or is not *Antimony*, v. g. when that word is to stand for the real *Essence* of it ; whereof we have no *idea* at all.

Or suppose these names only stand for simple *ideas*, found to co-exist in *substances*, yet thus they will be liable to great uncertainty too : because these simple *ideas* being very numerous, men frame different *ideas* of the same subjects, by putting different *ideas* into their complex one, of such *substances* several men observe several properties in the same substance, and none of them all ; who having but imperfect descriptions of things, can have but uncertain significations of words.

Fourthly, Where the signification of the word, and the real *Essence* of the thing, are not the same, which is still the case of *substances*, from hence we may observe,

First, That the names of simple *ideas* are least liable to mistakes : *First*, Because the *ideas* they stand for, being each but one single perception, are

easier got, and more clearly retained, than the more complex ones of Substances and mixed Modes, *Secondly*, Because they are not referred to any other Essence, but barely that perception they immediately signify.

Secondly, Names of *simple Modes* are next to *simple ideas* least liable to doubt or uncertainty, especially those of *Figure* and *Number*, of which men have so clear and distinct *ideas*.

Thirdly, In *mixed Modes*, when they are composed of a few and obvious *ideas*, their names are clear and distinct enough; otherwise doubtful and uncertain.

Fourthly, The names of *substances* being annexed to *ideas*, that are neither the real Essences, nor exact Representations of things, are liable yet to greater Imperfection, when we come to a philosophical use of them.

C H A P. X.

Of the Abuse of Words.

BESIDE the natural and unavoidable Imperfections of Languages, there are *wilful Faults* and *Neglects*, which men are often guilty of in their use of words. For,

First, They use words *without clear and distinct Ideas*, or, which is worse, signs without any thing signified; such are for the most part introduced by

sects of Philosophy and Religion, either out of an affectation of *singularity*, or to support some strange *Opinion*; or to cover the weakness of their *Hypothesis*. These are commonly such as had no determinate collection of *ideas* annexed to them, when they were first invented; or at least such, as if well examined will be found inconsistent, and therefore may justly be called insignificant terms: instances of this kind may easily be had from the *school-men* and *metaphysicians*. Others learn words which the propriety of language has affixed to very important *ideas*, and often upon occasion use them without any distinct meaning at all: whence their notions being unsteady and confused, their discourse must be filled with empty unintelligible *Noise* and *Jargon*, especially in moral matters where the words stand for arbitrary, and numerous collections of *ideas*, not regularly and permanently united in Nature.

Secondly, Another Abuse is *Inconstancy in the use of Words*; it is hard to find a discourse on any subject wherein the same words are not used sometimes for one collection of *ideas*, sometimes for another. The wilful doing whereof can be imputed to nothing but great folly, or greater dishonesty: and a man in his accompts with another, may with as much fairness make the characters of numbers, stand sometimes for one, and sometimes for another collection of *Unites*; as in his

discourse, or reasoning, make the same words stand for different collections of simple *ideas*.

Thirdly, Another is an *affected obscurity*, either by using old words in new significations, or by introducing new and ambiguous terms, without defining them; or putting them together, so as to confound their ordinary meaning. Tho' the *Peripatetick philosophy* has been most eminent in this way, yet other sects have not been wholly clear of it. The admir'd *art of disputing* hath added much to the natural imperfection of Languages, whilst it has been made use of, and fitted to perplex the signification of words, more than to discover the Knowledge and Truth of things: and he that will look into that sort of learned writings, will find the words there much more obscure, uncertain, and undetermined in their meaning, than they are in ordinary Conversation.

Fourthly, Another is the *taking words for things*: this, tho' it in some degree concerns all names in general; yet more particularly affects those of Substances. Thus in the *Peripatetick Philosophy*, *Substantial Forms*, *Abhorrence of Vacuum*, &c. are taken for something real. To this Abuse those men are most subject, who confine their thoughts to any one *system*; and give themselves up into a firm belief of the perfection of any received *Hypothesis*; whereby they come to be persuaded, that the terms of that sect, are so suited to the nature of

things, that they perfectly correspond with their real existence.

Fifthly, Another is the *setting them in the place of things which they can by no means signify*. We may observe that in the general names of Substances, whereof the nominal Essences are only known to us, when we affirm or deny any thing about them, we do most commonly tacitly suppose or intend they should stand for the real Essence of a certain sort of Substances. Thus when a man says *Gold is malleable*, he would insinuate something more than this, what I call *Gold is malleable*, (tho' truly it amounts to no more) *namely*, that what has the real Essence of *Gold* is *malleable*, that is, that *malleableness* depends on, and is inseparable from the real Essence of *Gold*. But a man not knowing wherein that real Essence consists, the connexion in his mind of *malleableness*, is not truly with an *Essence* he knows not, but with the sound *Gold* he puts for it. It is true, the names of Substances would be much more useful; and Propositions expressed by them much more certain, were the real Essences of Substances the *ideas* in our minds, which those words signified. And it is for want of those real Essences that our words convey so little knowledge, or certainty in our discourses about them. But to suppose these names to stand for a thing, having the real Essence on which the properties depend, is so far from diminishing the im-

perfection of our words, that by a plain abuse it adds to it; when we would make them stand for something, which not being in our complex *ideas*, the name we use can no way be the sign of it. In *mixed Modes*, any *idea* of the complex one being left out, or changed, it is allowed to be another thing, that is, to be of another *species*, as is plain in *Chance-medley*, *Man-slaughter*, *Murder*, &c. because the complex *idea* signified by that name, is the *real* as well as *nominal* Essence; and there is no secret reference of that name to any other Essence, but that. But in Substances it is not so; for tho' in that called *Gold*, one puts in his complex *idea*, what another leaves out, and *vice versa*, yet men do not usually think the species changed, because they refer the name in their minds to a real immutable Essence of a thing existing, on which those properties depend: but this reference of the name to a thing we have not the *idea* of, is so far from helping us at all, that it only serves the more to involve us in difficulties. This reference is grounded on this supposition, namely, that the same precise internal constitution goes always with the same specifick name: in which are contained these two false *suppositions*.

First, There are certain precise *Essences*, according to which, Nature makes all particular things; and by which they are distinguished into *species*.

Secondly, This tacitly insinuates as if we had i-

deas of these Essences; for why do we enquire, whether this or that thing have the real Essence of that species *man* for instance, if we did not suppose it known, which yet is utterly false; and therefore such applications of names as would make them stand for *ideas* we have not, must needs cause great disorder in discourse and reasonings about them; and be a great inconvenience in our communication by words.

Sixthly, Another more general, tho' less observed, abuse of words, is, that men having by long and familiar use, annexed to them certain *ideas*, they are apt to imagine so near and necessary a connexion, between the names, and the significations they use them in, that they forwardly suppose one cannot but understand what their meaning is; as if it were past doubt, that in the use of these common received sounds, the speaker and hearer had necessarily the same precise *ideas*. And so likewise taking the words of others, as naturally standing for just, what they themselves have been accustomed to apply them to, they never trouble themselves to explain their own, or understand anothers meaning: from whence commonly proceeds noise, and wrangling without improvement or information; whilst men take words to be the constant regular marks of agreed notions, which in truth are no more but the voluntary and unsteady signs of their own *ideas*.

Thus *life*, is a term, none more familiar : any one almost would take it for an affront, to be asked what he meant by it, and yet if it comes in question, whether such a thing has *life*, or not, it is easy to perceive, that a clear distinct settled *idea*, does not always accompany the use of so known a word.

Seventhly, Figurative Speech is also an abuse of Language : for tho' in discourses, where we seek rather pleasure and delight, than information and improvement, such ornaments as are borrowed from figurative speeches and allusions, can scarce pass for faults ; yet if we would speak of things as they are, we must allow, that all the *art of rhetoric*, besides order and clearness, all the artificial and figurative application of words, eloquence hath invented, are for nothing else but to insinuate wrong *ideas*, move the passions, and thereby mislead the judgment, and so indeed are perfect cheat. And therefore however allowable they may be in harangues and popular addresses ; they are certainly in all discourses that pretend to inform and instruct, wholly to be avoided ; and where truth and knowledge are concerned, cannot but be thought a great fault, either of the language or person that makes use of them.

To conclude this consideration, the *ends* of *language* in our discourse with others, are chiefly these *three*.

First, To make our thoughts or *ideas* known to another; this we fail in: *1st*, When we use names without clear and distinct *ideas* in our minds. *2dly*, When we apply received names to *ideas*, to which the common use of that language does not apply them. *3dly*, When we apply them unsteadily, making them stand now for one, and by and by for another *idea*.

Secondly, To make known our thoughts *with as much ease* and quickness as is possible. This men fail in when they have complex *ideas*, without having distinct names for them, which may happen either through the defect of a language, which has none, or the fault of that man who has not yet learned them.

Thirdly, To convey the knowledge of things: this cannot be done, but when our *ideas* agree to the reality of things.

He that hath *names* without *ideas*, wants meaning in his words, and speaks only empty sounds: he that hath *complex ideas*, without names for them, wants dispatch in his expression. He that uses his words loosely and unsteadily, will either not be minded, or not understood. He that applies his names to *ideas*, different from their common use, wants *propriety* in his language, and speaks gibberish. And he that hath *ideas* of *substances*, disagreeing with the real existence of things, so far wants the materials of true knowledge in his

understanding, and has instead thereof, *chimeras*.

Language being the great conduit whereby men convey their discoveries, reasonings, and knowledge from one to another; he that makes an ill use of it, tho' he does not corrupt the fountains of knowledge which are in things themselves, yet he does as much as in him lies, break or stop the pipes whereby it is distributed to the publick use and advantage of mankind. He that uses words without any clear and steady meaning, what does he but lead himself and others into errors? And he that designedly does it, ought to be look'd on as an enemy to truth and knowledge.

If we look into books of controverſie of any kind, we shall see that the effect of obscure, unsteady and equivocal terms, is nothing but noise and wrangling about sounds, without convincing or bettering a man's understanding. For if the *idea* be not agreed on between speaker and hearer, for which the words stand, the argument is not about *things* but *names*.

It deserves to be considered, and carefully examined, whether the greatest part of the disputes in the world, are not merely *verbal*, and about the signification of words; and that if the terms they are made in were defined and reduced in their significations, to the single *ideas* they stand for, those disputes would not end of themselves, and immediately vanish.

C H A P. XI.

*Of the Remedies of the foregoing Imperfections
and Abuses.*

TO remedy the defects of speech above-mentioned, the following rules may be of use.

First, A man should take care to use no word without a signification, no *name* without an *idea* for which he makes it stand. This rule will not seem needless to any one, who will take the pains to recollect how often he has met with such words, as *Instinct*, *Sympathy*, *Antipathy*, &c. so made use of, as he might easily conclude, that those that used them had no *ideas* in their minds to which they applied them.

Secondly, Those *ideas* he annexes them to should be *clear* and *distinct*, which in complex *ideas* is by knowing the particular ones that make that composition; of which, if any one be again complex, we must know also the precise collection that is united in each, and so till we come to simple ones. In Substances the *ideas* must not only be distinct, but also conformable to *things* as they exist.

Thirdly, He must apply his words, as near as may be, to such *ideas*, as common use has annexed them to: for words, especially of languages already framed, are no man's private possession, but

the common measure of commerce and communication; and therefore it is not for any one to change the stamp they are current in, nor alter the *ideas* they are affixed to; or at least, when there is a necessity to do so, he is bound to give notice of it. And therefore,

Fourthly, When common use has left the signification of a word uncertain and loose, or where it is to be used in a peculiar sense; or where the term is liable to any doubtfulness or mistake, there it ought to be defined, and its signification ascertained.

Words standing for *simple ideas* being not *definable*, their signification must be shewn either, *First*, By a synonymous word. *Secondly*, By naming a subject, wherein that simple *idea* is to be found. *Thirdly*, By presenting to the senses that subject, which may produce it in the mind, and make him actually have the *idea* that word stands for. *Mixed Modes* may be perfectly defined, by exactly enumerating those *ideas* that go to each composition. This ought more especially to be done in mixed Modes belonging to *Morality*: since definition is the only way whereby the precise meaning of *moral Words* can be known: and yet a way whereby their precise meaning may be known certainly, and without leaving any room for any contest about it.

For the explaining the signification of the names

of *substances*, both the fore-mentioned ways, *viz.* of shewing, and defining are requisite in many cases to be made use of; their names are best defined by their *leading Qualities*, which are mostly *shape* in animals and vegetables; and *colour* in inanimate bodies; and in some, both together. Now these leading Qualities are best made known by shewing, and can hardly be made known otherwise. The shape of a *Horse* or *Cassowary* will be but imperfectly imprinted on the mind by words: the sight of the animals doth it much better. And the *idea* of the particular colour of *Gold* is not to be got by any description of it, but only by the frequent exercise of the eyes about it. The like may be said of those other simple *ideas*, peculiar in their kind to any substance, for which precise *ideas* there are no peculiar names.

But because many of the simple *ideas*, which make up our specifick *ideas* of substances, are powers which lie not obvious to our sense in the things, as they ordinarily appear; therefore in the signification of our names of Substances, some part of the signification will be better made known, by enumerating those simple *ideas*, than in shewing the substance it self. For he that to the *Yellow shining colour* of Gold, got by sight, shall from my enumerating them have the *ideas* of great *Ductibility*, *Fusibility*, *Fixedness*, and *Solubility* in *Aqua Regia* will have a perfecter *idea* of Gold,

than he can have by seeing a piece of *Gold*, and thereby imprinting in his mind only its obvious qualities.

It were to be wished that words standing for things, which are known and distinguished by their outward shapes, should be expressed by little draughts and prints made of them. A Vocabulary made after this fashion, would perhaps with more ease, and in less time, teach the true signification of many terms, especially in languages of remote countries, or ages; and settle truer *ideas* in mens minds of several things, whereof we read the names in ancient authors, than all the large and laborious comments of learned criticks. *Naturalists* that treat of *Plants* and *Animals*, have found the benefit of this way: and he that consults them will find that he has a clearer *idea* of *Apium* and *Ibex* from a little print of that herb or beast, than he could have from a long definition of the names of either of them; and so no doubt he would have of *Strigil*, and *Sistrum*, if instead of a *Curry-comb* or *Cymbal*, which are the English names dictionaries render them by, he could see stamped in the margin small pictures of these instruments, as they were in use amongst the ancients.

Fifthly, The last rule that I shall mention is, that in all discourses wherein one man pretends to instruct or convince another, he should use the same word constantly in the same sense; if this

were done (which no body can refuse, without great disingenuity) many of the books extant might be spared; many of the controversies in dispute, would be at an end; several of those great volumes swollen with ambiguous words, now used in one sense, and by and by in another, would shrink into a very narrow compass: and many of the *Philosophers* (to mention no other) as well as *Poets* works, might be contained in a *Nutshell*.

B O O K IV.

C H A P. I.

Of Knowledge in General.

SINCE the mind in all its thoughts and reasonings, has no other immediate object but its own *ideas*, which alone it does or can contemplate; it is evident that our knowledge is only conversant about them. *Knowledge* then seems to be nothing but the perception of the connexion and agreement, or disagreement and repugnancy of any of our *ideas*: where this perception is, there is knowledge; and where it is not, there, tho' we fancy, guess, or believe, yet we always come short of *Knowledge*. When we know that *White* is not *Black*, what do we but perceive that these two *ideas* do not agree? Or that the three angles of a *Triangle*, are equal to two right ones; what do we more but perceive that equality to two right ones, does necessarily agree to, and is inseparable from the three angles of a *Triangle*? But to understand a little more distinctly, wherein this agreement or disagreement consists; we may reduce it all to these *four sorts*; First, *Identity* or

Diversity; Secondly, *Relation*; Thirdly, *Co-existence*; Fourthly, *Real Existence*.

1. *Identity* or *Diversity*: 'tis the first act of the mind, to perceive its ideas; and so far as it perceives them, to know each what it is, and thereby to perceive their difference, that is, the one not to be the other: by this the mind clearly perceives each *idea* to agree with it self, and to be what it is; and all distinct *ideas* to disagree. This it does without any pains or deduction, by its natural power of perception and distinction. This is what men of art have reduced to those general rules, viz. *What is, is*. And it is impossible for the same thing to be, and not to be. But no maxim can make a man know it clearer, that *Round* is not *Square*, than the bare perception of those two *ideas*, which the mind at first sight perceives to disagree.

2. The next sort of agreement or disagreement the mind perceives in any of its *ideas*, may be called *Relative*, and is nothing but the perception of the Relation, between any two *ideas* of what kind soever: that is, their agreement or disagreement one with another in several ways the mind takes of comparing them.

3. The third sort of agreement or disagreement to be found in our *ideas*, is *Co-existence*, or *Non-co-existence* in the same subject; and this belongs particularly to Substances. Thus when we pronounce concerning *Gold*, that it is fixed, it amounts to no

more but this, that fixedness, or a power to remain in the fire unconsumed, is an *idea* that always accompanies that particular sort of *Yellowness, Weight, Fusibility, &c.* which make our complex *idea*, signified by the word *Gold*.

4. The fourth sort is that of actual and *real Existence* agreeing to any *idea*. Within these four sorts of agreement or disagreement, I suppose is contained all the knowledge we have, or are capable of. For all that we know or can affirm concerning any *idea*, is, that it is, or is not the same with some other: as that *Blew is not Yellow*. That it does, or does not co-exist with another in the same subject: as that *Iron is susceptible of Magnetical Impressions*: that it has that or this Relation to some other *ideas*: as that *two Triangles upon equal bases between two parallels are equal*; or that it has a real Existence without the mind: as *that God is*.

There are several ways wherein the mind is possess'd of truth, each of which is called Knowledge. *First*, There is *actual Knowledge*, when the mind has a present view of the agreement or disagreement of any of its *ideas*, or of the Relation they have one with another. *Secondly*, A man is said to know any proposition, when having once evidently perceived the agreement or disagreement of the *ideas* whereof it consists, and so lodged it in his memory, that whenever it comes to be reflected on

again, the mind assents to it without doubt or hesitation, and is certain of the truth of it. And this may be called *habitual Knowledge*: and thus a man may be said to know all those truths which are lodged in his memory, by a foregoing, clear, and full perception.

Of *habitual Knowledge* there are two sorts: the one is of such truths laid up in the memory, as whenever they occur to the mind, it actually perceives the Relation that is between those *ideas*. And this is in all those truths, where the *ideas* themselves, by an immediate view, discover their agreement or disagreement one with another. The other is of such truths, whereof the mind having been convinced, it retains the memory of the conviction, without the proofs. Thus a man that remembers certainly, that he once perceiv'd the demonstration, that the three angles of a Triangle are equal to two right ones, knows it to be true, when that demonstration is gone out of his mind, and possibly cannot be recollected: but he knows it in a different way from what he did before; namely, not by the intervention of those intermediate *ideas*, whereby the agreement or disagreement of those in the proposition was at first perceiv'd; but by remembering, *i. e.* knowing that he was once certain of the truth of this proposition, that the three angles of a Triangle are equal to two right ones. The immutability of the same Re-

lations between the same immutable things, is now the *idea* that shews him, that if the three angles of a Triangle were once equal to two right ones, they will always be so. And hence he comes to be certain, that what was once true, is always true; what *ideas* once agreed, will always agree; and consequently, what he once knew to be true, he will always know to be true, as long as he can remember that he once knew it.

C H A P. II.

Of the Degrees of our Knowledge.

ALL our Knowledge consisting in the view the mind has of its own *ideas*, which is the utmost light, and greatest certainty we are capable of: the *different clearness of our Knowledge*, seems to lie in the different way of perception the mind has of the agreement or disagreement of any of its *ideas*.

When the mind perceives this agreement or disagreement of two *ideas immediately* by themselves, without the intervention of any other; we may call it *intuitive Knowledge*, in which cases the mind perceives the truth, as the eye does light, only by being directed towards it. Thus the mind perceives that *White is not Black*, that *Three are more than Two*, and *equal to One and Two*. This

part of Knowledge is irresistible, and like the bright sun-shine, forces it self immediately to be perceived as soon as ever the mind turns its view that way. It is on this *intuition*, that depends all the certainty and evidence of our other Knowledge; which certainty every one finds to be so great, that he cannot imagine, and therefore not require a greater.

The next degree of Knowledge is, where the mind perceives not this agreement or disagreement immediately, or by the *Juxta-position* as it were of the *ideas*, because those *ideas* concerning whose agreement or disagreement the enquiry is made, cannot by the mind be so put together, as to shew it. In this case the mind is fain to discover the agreement or disagreement which it searches, by the intervention of other *ideas*: and this is that which we call *Reasoning*: and thus if we would know the agreement or disagreement in bigness, between the three angles of a Triangle, and two right Angles; we cannot by an immediate view, and comparing them do it; because the three angles of a Triangle cannot be brought at once, and be compared with any other one, or two angles. And so of this, the mind has no immediate or intuitive Knowledge. But we must find out some other Angles, to which the three Angles of a Triangle have equality, and finding those equal to two right ones, we come to know the equality of

these three Angles to two right ones. Those intervening *ideas*, which serve to shew the agreement of any two others, are called *Proofs*. And where the agreement or disagreement is by this means plainly and clearly perceived, it is called *Demonstration*. A quickness in the mind to find those *Proofs*, and to apply them right, is, I suppose, that which is called *Sagacity*.

This Knowledge, tho' it be certain, is not so clear and evident as *intuitive* Knowledge. It requires pains and attention, and steady application of mind, to discover the agreement or disagreement of the *ideas* it considers, and there must be a progression by steps and degrees, before the mind can in this way arrive at certainty. Before *Demonstration* there was a doubt, which in *intuitive Knowledge* cannot happen to the mind, that has its faculty of Perception left to a degree capable of distinct *ideas*, no more than it can be a doubt to the Eye (that can distinctly see *White* and *Black*) whether this Ink and Paper be all of a Colour.

Now in every step that Reason makes in *demonstrative Knowledge*, there is an *intuitive Knowledge* of that agreement or disagreement it seeks with the next intermediate *idea*, which it uses as a Proof; for if it were not so, that yet would need a Proof; since without the Perception of such agreement or disagreement, there is no Knowledge pro-

duced. By which it is evident, that every step in Reasoning, that produces Knowledge, has *intuitive Certainty* ; which when the mind perceives, there is no more required but to remember it, to make the agreement or disagreement of the *ideas* concerning which we enquire, visible and certain. This *intuitive Perception* of the agreement or disagreement of the intermediate *ideas* in each step and progression of the Demonstration, must also be exactly carried in the mind ; and a man must be sure that no part is left out ; which because in long deductions, the memory cannot easily retain ; this Knowledge becomes more imperfect than *intuitive* ; and men often embrace Falshoods, for Demonstrations.

It has been generally taken for granted, that *Mathematicks* alone are capable of demonstrative Certainty. But to have such an agreement or disagreement as may be *intuitively* perceived, being as I imagine not the privilege of the *ideas* of *Number*, *Extension* and *Figure* alone ; it may possibly be the want of due method and application in us, and not of sufficient evidence in things, that Demonstration has been thought to have so little to do in other parts of Knowledge. For in whatever *ideas* the mind can perceive the agreement or disagreement immediately, there it is capable of *intuitive Knowledge* : and where it can perceive the agreement or disagreement of any two *ideas*, by an in-

tuitive Perception of the agreement or disagreement they have with any intermediate *ideas*, there the mind is capable of Demonstration, which is not limited to the *ideas* of Figure, Number, Extension, or their Modes. The reason why it has been generally supposed to belong to them only, is because in comparing their Equality or Excess, the *Modes of Numbers* have every the least difference, very clear and perceivable: and in *Extension*, tho' every the least Excess is not so perceptible, yet the mind has found out ways to discover the just Equality of two Angles, Extensions, or Figures; and both, that is, Numbers and Figures, can be set down by visible and lasting marks.

But in other simple *ideas*, whose Modes and Differences are made and counted by Degrees, and not Quantity, we have not so nice and accurate a distinction of their Differences, as to perceive or find ways to measure their just Equality, or the least Differences. For those other simple *ideas* being Appearances or Sensations produced in us, by the *Size, Figure, Motion, &c.* of minute Corpuscles singly insensible; their different Degrees also depend on the variation of some, or all of those causes; which since it cannot be observed by us in Particles of Matter, whereof each is too subtile to be perceived, it is impossible for us to have any exact measures of the different degrees of these simple *ideas*. Thus, for instance, not knowing what num-

ber of Particles, nor what Motion of them is fit to produce any precise degree of *Whiteness*; we cannot demonstrate the certain equality of any two degrees of *Whiteness*, because we have no certain standard to measure them by, nor means to distinguish every the least difference: the only help we have being from our senses, which in this point fail us.

But where the difference is so great as to produce in the mind *ideas* clearly distinct; there *ideas* of Colours, as we see in different kinds, *Blue* and *Red* (for instance) are as capable of Demonstration, as *ideas* of Number and Extension. What is here said of Colours, I think, holds true in all secondary Qualities. These two then, *Intuition* and *Demonstration*, are the degrees of our *Knowledge*: whatever comes short of one of these, is but *Faith* or *Opinion*, not *Knowledge*, at least in all *general Truths*. There is indeed another Perception of the mind employed about the *particular Existence of finite Beings*, without us, which going beyond Probability, but not reaching to either of the foregoing degrees of Certainty, passes under the name of Knowledge.

Nothing can be more certain, than that the *idea* we receive from an external Object is in our minds: this is *intuitive Knowledge*; but whether we can thence certainly infer the Existence of any thing without us, corresponding to that *idea*, is

that whereof some men think there may be a question made, because men may have such an *idea* in their minds, when no such thing exists, no such Object affects their senses. But 'tis evident that we are invincibly conscious to our selves of a different Perception, when we look upon the *Sun* in the day, and think on it by night ; when we actually taste *Wormwood*, or smell a *Rose*, or only think on that *Savour* or *Odour* : so that I think we may add to the two former sorts of Knowledge, this also of the Existence of particular external Objects, by that Perception and Consciousness we have, of the actual entrance of *ideas* from them, and allow these three degrees of Knowledge, *viz. intuitive, demonstrative, and sensitive.*

But since our Knowledge is founded on, and employed about our *ideas* only : will it follow thence that it must be conformable to our *ideas*, and that where our *ideas* are clear and distinct, obscure and confused, there our Knowledge will be so too ? *I answer, No* : for our Knowledge consisting in the Perception of the agreement or disagreement of any two *ideas* ; its clearness or obscurity consists in the clearness or obscurity of that Perception, and not in the clearness or obscurity of the *ideas* themselves. A man (for instance) that has a clear *idea* of the angles of a Triangle, and of Equality to two right ones, may yet have but an obscure Perception of their agreement ; and so

have but a very obscure Knowledge of it. But obscure and confused *ideas* can never produce any clear or distinct Knowledge ; because, as far as any *ideas* are obscure or confused, so far the mind can never perceive clearly, whether they agree or disagree : or, to express the same thing in a way less apt to be misunderstood : he that hath not determin'd *ideas* to the words he uses, cannot make propositions of them, of whose truth he can be certain.

C H A P. III.

Of the Extent of Human Knowledge.

FROM what has been said concerning Knowledge, it follows that, *First*, That we can have no Knowledge farther than we have *ideas*.

Secondly, That we have no Knowledge farther than we can have Perception of that agreement or disagreement of our *ideas*, either by *Intuition*, *Demonstration*, or *Sensation*.

Thirdly, We cannot have an *intuitive* Knowledge that shall extend it self to all our *ideas*, and all that we would know about them ; because we cannot examine and perceive all the relations they have one to another, by *Juxta-position*, or an immediate Comparison one with another. Thus we cannot *intuitively* perceive the equality of two Extensions, the difference of whose figures makes

their parts incapable of an exact immediate application.

Fourthly, Our *rational Knowledge* cannot reach to the whole extent of our *ideas*; because between two different *ideas* we would examine, we cannot always find such *Proofs* as we can connect one to another, with an *intuitive Knowledge* in all the parts of the Deduction.

Fifthly, *Sensitive Knowledge* reaching no farther than the Existence of things actually present to our senses, is yet much narrower than either of the former.

Sixthly, From all which it is evident, that the *extent of our Knowledge*, comes not only short of the reality of *Things*, but even of the extent of our own *ideas*. We have the *ideas* of a *Square*, a *Circle* and *Equality*, and yet perhaps shall never be able to find a *Circle equal to a Square*.

The Affirmations or Negations we make concerning the *ideas* we have, being reduced to the four sorts above-mentioned, *viz. Identity, Co-existence, Relation*, and *real Existence*; I shall examine how far our Knowledge extends in each of these.

First, As to *Identity and Diversity*, our *intuitive Knowledge* is as far extended as our *ideas* themselves; and there can be no *idea* in the mind, which it does not presently by an *intuitive Knowledge*, perceive to be what it is, and to be different from any other.

Secondly, As to the agreement or disagreement of our *ideas* in *Co-existence*: in this our Knowledge is very short, tho' in this consists the greatest and most material part of our Knowledge, concerning *Substances*: for our *ideas* of *Substances*, being, as I have shewed, nothing but certain *Collections of simple ideas, co-existing in one subject*, (our *idea* of *Flame*, for instance, is a Body *hot, luminous and moving upward*.) When we would know any thing farther concerning this or any other sort of Substance, what do we but enquire what other qualities or powers these Substances have or have not? which is nothing else but to know what other simple *ideas* do, or do not *co-exist* with those that make up that complex *idea*. The reason of this is, because the simple *ideas* which make up our complex *ideas* of Substances, have no visible necessary connexion or inconsistency with other simple *ideas*, whose Co-existence with them we would inform our selves about. These *ideas* being likewise for the most part *secondary Qualities* which depend upon the *primary Qualities* of their minute or insensible parts, or on something yet more remote from our comprehension; it is impossible we should know which have a necessary Union, or Inconsistency one with another, since we know not the Root from whence they spring, or the Size, Figure, and Texture of Parts on which they depend, and from which they result.

Besides this, there is no *discoverable Connexion* between any *secondary* Quality, and those *primary* Qualities that it depends on. We are so far from knowing what *Figure*, *Size*, or *Motion* produces (for instance) a *yellow Colour*, or *sweet Taste*, or a *sharp Sound*, that we can by no means conceive how any *Size*, *Figure*, or *Motion* can possibly produce in us the *idea* of any *Colour*, *Taste*, or *Sound* whatsoever; and there is no conceivable Connexion between the one and the other.

Our knowledge therefore of Co-existence reaches little farther than *Experience*. Some few indeed of the *primary* Qualities have a necessary Dependence, and visible Connexion one with another: as *Figure* necessarily supposes *Extension*, *receiving or communicating Motion by Impulse*, supposes *Solidity*. But Qualities co-existent in any subject, without this Dependence and Connexion, cannot certainly be known to co-exist any farther, than experience by our senses informs us. Thus, tho' upon trial we find *Gold* *Yellow*, *Weighty*, *Malleable*, *Fusible* and *Fixed*, yet because none of these have any evident Dependence, or necessary Connexion with the other; we cannot certainly know, that where any *four* of these are, the *fifth* will be there also, how highly probable soever it may be: but the highest degree of *Probability*, amounts not to *Certainty*; without which there can be no true Knowledge: for this Co-existence can be no sur-

ther known, than it is perceived; and it cannot be perceived, but either in *particular* subjects, by the observation of our senses; or in *general*, by the necessary Connexion of the *ideas* themselves.

As to *Incompatibility*, or *Repugnancy to Co-existence*, we may know that any subject can have of each sort of *primary* Qualities, but one particular at once. One Extension, one Figure; and so of sensible *ideas* peculiar to each sense: for whatever of each kind is present in any subject, excludes all other of that sort: for instance, one subject cannot have *two Smells*, or *two Colours* at the same time.

As to *Powers of Substances*, which makes a great part of our enquiries about them, and is no inconsiderable branch of our Knowledge: Our Knowledge as to these reaches little farther than *Experience*; because they consist in a Texture and Motion of parts, which we cannot by any means come to discover; and I doubt whether with those *Faculties* we have, we shall ever be able to carry our general Knowledge much farther in this part. *Experience* is that which in this part we must depend on; and it were to be wished that it were more improved: we find the advantages some mens generous pains, have this way brought to the stock of *natural Knowledge*. And if others, especially the *Philosophers by fire* who pretend to it, had been so wary in their Observations, and sincere in their Reports, as those who call them-

selves *Philosophers* ought to have been : our acquaintance with the Bodies here about us, and our insight into their powers and operations had been yet much greater.

As to the third sort the *agreement or disagreement of our ideas in any other Relation* : this is the largest field of Knowledge, and it is hard to determine how far it may extend. This part depending on our sagacity in finding intermediate *ideas*, that may shew the Habitudes and Relations of *ideas* ; it is an hard matter to tell when we are at an end of such discoveries. They that are ignorant of *Algebra*, cannot imagine the wonders in this kind, are to be done by it : and what farther improvements and helps, advantageous to other parts of Knowledge, the sagacious mind of man may yet find out, it is not easy to determine. This at least I believe that the *ideas of Quantity*, are not those alone that are capable of Demonstration and Knowledge : and that other, perhaps more useful parts of Contemplation, would afford us Certainty, if Vices, Passions, and domineering interest did not oppose or menace endeavours of this kind.

The *idea of a supream Being*, infinite in Power, Goodness, and Wisdom, whose Workmanship we are, and on whom we depend ; and the *idea of ourselves*, as understanding rational Creatures, would I suppose, if duly considered, afford such Foundations of our *Duty*, and *Rules of Action*, as might

place *Morality* among the Sciences capable of Demonstration : wherein I doubt not but from principles as incontestable as those of the *Mathematicks*, by necessary consequences, the measure of *Right* and *Wrong* might be made out, to any one that will apply himself with the same indifferency and attention to the one, as he does to the other of these Sciences. The Relations of other Modes may certainly be perceived as well as those of Number and Extension. *Where there is no Property, there is no Injustice*, is a Proposition as certain as any Demonstration in *Euclid*: for the *idea* of *Property* being a right to any thing ; and the *idea* of *Injustice*, being the invasion or violation of that right : it is evident that these *ideas* being thus established, and these names annexed to them, I can as certainly know this Proposition to be true, as that a *Triangle has three Angles equal to two right ones*. Again, *no Government allows absolute Liberty*. The *idea* of *Government* being the establishment of Society upon certain rules or laws, which require conformity to them ; and the *idea* of *absolute Liberty*, being for any one to do whatever he pleases, I am as capable of being certain of the truth of this Proposition, as of any in *Mathematicks*.

What has given the advantage to the *ideas* of *Quantity*, and made them thought more capable of Certainty and Demonstration, is,

First, That they can be represented by sensible

marks, which have a nearer correspondence with them, than any Words or Sounds. *Diagrams* drawn on paper, are copies of the *ideas*, and not liable to the uncertainty that words carry in their signification. But we have no sensible Marks that resemble our *moral ideas*, and nothing but words to express them by; which tho', when written, they remain the same; yet the *ideas* they stand for, may change in the same man; and it is very seldom that they are not different in different persons.

Secondly, *moral ideas* are commonly more complex than figures: whence these two inconveniences follow: *First*, That their names are of more uncertain Signification; the precise collection of simple *ideas* they stand for, not being so easily agreed on, and so the Sign that is used for them in Communication always, and in thinking often, does not steadily carry with it the same *idea*. *Secondly*, The Mind cannot easily retain those precise combinations so exactly and perfectly as is necessary; in the examination of the Habitudes and Correspondencies, agreements or disagreements of several of them one with another, especially where it is to be judged of by long deductions, and the Intervention of several other complex *ideas*, to shew the agreement or disagreement of two remote ones.

Now one part of these disadvantages in *moral ideas*, which has made them be thought not capable of Demonstration, may in a good measure be reme-

died by *Definitions*, setting down that collection of simple *ideas* which every term shall stand for, and then using the terms steadily and constantly for that precise collection.

As to the fourth sort of Knowledge, *viz. Of the real actual Existence of things*, we have an *intuitive Knowledge of our own Existence* : a *demonstrative Knowledge of the Existence of God* ; and a *sensitive Knowledge of the Objects that present themselves to our Senses*.

From what has been said we may discover the *Causes of our Ignorance*, which are chiefly these three, *First*, Want of *ideas* ; *Secondly*, Want of a discoverable connection between the *ideas* we have : *Thirdly*, Want of tracing and examining our *ideas*.

First, There are some things we are ignorant of for *want of ideas*. All the simple *ideas* we have, are confined to the Observation of our Senses, and the Operations of our own Minds, that we are conscious of in our selves. What other *ideas* it is possible other creatures may have, by the assistance of other senses and faculties more or perfecter than we have, or different from ours, it is not for us to determine ; but to say or think there are no such, because we conceive nothing of them, is no better an argument, than if a blind man should be positive in it, that there was no such thing as sight and colours, because he had no manner of *idea*

of any such thing. What faculties therefore other species of creatures have to penetrate into the nature and inmost constitutions of things, we know not. This we know, and certainly find, that we want other views of them, besides those we have to make discoveries of them more perfect. The *intellectual* and *sensible* world are in this perfectly alike, that the parts which we see of either of them, hold no proportion with that we see not; and whatsoever we can reach with our eyes, or our thoughts of either of them, is but a point, almost nothing, in comparison of the rest.

Another great cause of Ignorance, is *the want of ideas that we are capable of*. This keeps us in ignorance of things we conceive capable of being known. Bulk, Figure and Motion we have *ideas* of: yet not knowing what is the particular bulk, motion and figure of the greatest part of the bodies of the Universe, we are ignorant of the several Powers, Efficacies and Ways of Operation, whereby the Effects we daily see, are produced. These are hid from us in some things, by being *too remote*, in others by being *too minute*.

When we consider the vast distance of the known and visible parts of the world, and the reasons we have to think that what lies within our ken, is but a small part of the immense Universe; we shall then discover an huge Abyss of Ignorance. What are the particular fabricks of the great mas-

ses of Matter, which make up the whole stupendous frame of corporeal Beings, how far they are extended, and what is their motion, and how continued, and what influence they have upon one another, are contemplations that at first glimpse our thoughts lose themselves in. If we confine our thoughts to this little Canton, I mean this System of our Sun, and the grosser Masses of Matter that visibly move about it ; what several sorts of Vegetables, Animals, and Intellectual corporeal Beings, infinitely different from those of our little spot of Earth, may probably be in other *Planets*, to the knowledge of which, even of their outward figures and parts, we can no way attain, whilst we are confined to this Earth, there being no natural means, either by Sensation or Reflection, to convey their certain *ideas* into our minds ?

There are other Bodies in the Universe, no less concealed from us by their *minuteness*. These insensible Corpuscles being the active parts of Matter, and the great instruments of Nature, on which depend all their *secondary* Qualities and Operations, our want of precise distinct *ideas* of their *primary* Qualities, keeps us in incurable Ignorance of what we desire to know about them. Did we know the mechanical affections of *Rhubarb* or *Opium*, we might as easily account for their Operations of *Purging* and *causing Sleep*, as a Watch-maker can for the motions of his watch. The dissolving

of Silver in *Aqua Fortis*, or Gold in *Aqua Regia*, and not *vice versa*, would be then perhaps no more difficult to know, than it is to a *Smith*, to understand why the turning of one key will open a lock, and not the turning of another. But whilst we are destitute of senses, acute enough to discover the minute particles of Bodies, and to give us *ideas* of their mechanical affections, we must be content to be ignorant of their Properties and Operations ; nor can we be assured about them any farther, than some few trials we make, are able to reach : but whether they will succeed again another time, we cannot be certain. This hinders our certain knowledge of universal truths concerning natural Bodies : and our reason carries us herein very little beyond particular matter of fact. And therefore I am apt to doubt, that how far soever human Industry may advance useful and *experimental Philosophy* in physical things, yet *scientific* will still be out of our reach ; because we want perfect and adequate *ideas* of those very Bodies which are nearest to us, and most under our command.

This at first sight shews us how disproportionate our knowledge is to the whole extent, even of *material* Beings : to which, if we add the consideration of that infinite number of Spirits that may be, and probably are, which are yet more remote from our Knowledge, whereof we have no cogni-

zance : we shall find this cause of Ignorance, conceal from us in an impenetrable obscurity, almost the whole *intellectual* world : a greater certainly and a more beautiful world than the *material*. For bating some very few *ideas* of Spirit, we get from our own mind by reflection, and from thence the best we can collect, of the *Father of all Spirits*, the Author of them, and us, and all things : we have no certain Information, so much as of the Existence of other Spirits but by Revelation : much less have we distinct *ideas* of their different Natures, States, Powers, and several Constitutions, wherein they agree or differ one from another, and from us. And therefore in what concerns their different Species and Properties, we are under an absolute Ignorance.

The *second* Cause of Ignorance is the *want of discoverable connection* between those *ideas* we have ; where we want that, we are utterly incapable of universal and certain Knowledge ; and are, as in the former case, left only to *Observation* and *Experiment*. Thus the mechanical affections of Bodies, having no affinity at all with the *ideas* they produce in us, we can have no distinct Knowledge of such Operations beyond our Experience ; and can reason no otherwise about them, than as the effects or appointment of an infinitely *wise Agent*, which perfectly surpasses our comprehensions.

The Operation of our minds upon our bodies, is

as unconceivable. How any *Thought* should produce a motion in *Body*, is as remote from the nature of our *ideas*, as how any *Body* should produce any *thought* in the *mind*. That it is so, if experience did not convince us, the consideration of the things themselves, would never be able in the least to discover to us.

In some of our *ideas* there are certain Relations, Habitues, and Connexions, so visibly included in the nature of the *ideas* themselves, that we cannot conceive them separable from them by any power whatsoever: in these only we are capable of certain and universal knowledge. Thus the *idea* of a *right-lined Triangle*, necessarily carries with it an *Equality of its Angles to two right ones*. But the coherence and continuity of the parts of matter; the production of Sensation in us, of *Colours* and *Sounds*, &c. by Impulse, and Motion, being such wherein we can discover no natural Connexion with any *ideas* we have, we cannot but ascribe them to the arbitrary will and good pleasure of the wise Architect.

The things that we observe constantly to proceed regularly, we may conclude do act by a law set them; but yet by a law that we know not; whereby, tho' causes work steadily, and effects constantly flow from them; yet their connexions and dependencies being not discoverable in our *ideas*, we can have but an experimental know-

ledge of them. Several effects come every day within the notice of our *Senses*, of which we have so far *sensitive* Knowledge. But the Causes, Manner, and Certainty of their Production, we must for the foregoing reasons be content to be ignorant of. In these we can go no farther than particular *Experience* informs us of matter of fact, and by *Analogy*, guess what effects the like Bodies are upon other Trials like to produce. But as to perfect science of *natural Bodies* (not to mention *spiritual* Beings) we are, I think, so far from being capable of any such thing, that I conclude it lost labour to seek after it.

The *third* cause of Ignorance is our *want of tracing those ideas we have*, or may have; and finding out those intermediate *ideas* which may shew us what Habitude of Agreement or Disagreement they may have one with another: and thus many are ignorant of *mathematical* Truths, for want of application in enquiring, examining, and by due ways comparing those *ideas*.

Hitherto we have examined the *Extent* of our Knowledge, in respect of the several sorts of Beings that are. There is another *Extent* of it, in respect of *Universality*, which will also deserve to be considered; and in this regard our Knowledge follows the Nature of our *ideas*. If the *ideas* are *abstract*, whose agreement or disagreement we perceive, our Knowledge is *universal*. For what is known

of such general *ideas*, will be true of every particular thing in which that *Essence*, that is, that *abstract idea* is to be found: and what is once known of such *ideas*, will be perpetually, and for ever true. So that as to all general Knowledge, we must search and find it only in our own minds: and it is only the examining of our own *ideas*, that furnishes us with that. Truths belonging to *Essences* of things (that is, to *abstract ideas*) are *eternal*, and are to be found out by the Contemplation only of those *Essences*; as the Existence of things is to be known only from Experience. But I shall say more of this in the following Chapters, where I shall speak of *general*, and *real* Knowledge.

C H A P. IV.

Of the Reality of our Knowledge.

I Doubt not but my Reader by this time, may be apt to think that I have been all this while only building a *Castle* in the Air; and be ready to object, If it be true, that all Knowledge lies only in the perception of the agreement or disagreement of our own *ideas*, the visions of an *Enthusiast*, and the reasonings of a *sober* man will be equally certain: it is no matter how things are, so a man observe but the agreement of his own imaginations, and talk conformably, It is all Truth, all Cer-

tainty. That an *Harpy* is not a *Centaur*, is by this way as certain Knowledge, and as much Truth, as that a Square is not a Circle. But of what use is all this Knowledge of mens own Imaginations, to a man that enquires after the reality of things ?

To which *I answer*, That if our Knowledge of our *ideas* should terminate in them, and reach no farther, where there is something farther intended, our most serious thoughts would be of little more use, than the *Reveries* of a crazy brain. But I hope, before I have done, to make it evident, that this way of *Certainty* by the Knowledge of our own *ideas*, goes a little farther than bare Imagination : and that all the *Certainty* of general Truths a man has, lies in nothing else but this Knowledge of our *ideas*.

'Tis evident that the mind knows not things immediately, but by the intervention of the *ideas* it has of them. Our Knowledge therefore is *real*, only so far as there is a conformity between our *ideas*, and the reality of things. But how shall we know when our *ideas* agree with things themselves ? I answer, there be *two sorts* of *ideas* that we may be assured agree with things : these are,

First, *Simple ideas* ; which since the mind can by no means make to it self, must be the effect of things operating upon the mind in a natural way ; and producing therein those perceptions, which by the will of our Maker, they are ordained and a-

dapted to. Hence it follows, that *simple ideas* are not fictions of our fancies, but the natural and regular productions of things without us, really operating upon us; which carry with them all the conformity our state requires, which is to represent things under those appearances they are fitted to produce in us. Thus the *idea* of *Whiteness*, as it is in the mind, exactly answers that power which is in any body to produce it there. And this conformity between our *simple ideas*, and the existence of things is sufficient for real Knowledge.

Secondly, All our *complex ideas*, except those of Substances, being *Archetypes* of the mind's own making, and not referred to the existence of things as to their originals, cannot want any conformity necessary to real Knowledge. For that which is not designed to represent any thing but it self, can never be capable of a wrong representation. Here the *ideas* themselves are considered as *Archetypes*, and things no otherwise regarded, than as they are conformable to them. Thus the *Mathematician* considers the Truth and Properties belonging to a *Rectangle* or *Circle* only, as they are *ideas* in his own mind, which possibly he never found existing mathematically, that is, precisely true: yet his knowledge is not only certain, but *real*; because real things are no farther concern'd nor intended to be meant by any such propositions, than as things really agree to those *Archetypes* in his

mind. It is true of the *idea* of a *Triangle*, that its *three Angles are equal to two right ones*; it is true also of a *Triangle* where-ever it *exists*: what is true of those *Figures*, that have barely an *ideal* existence in his mind, will hold true of them also, when they come to have a *real* existence in Matter.

Hence it follows, that *moral* Knowledge is as capable of *real Certainty* as *Mathematicks*. For *Certainty* being nothing but the Perception of the agreement or disagreement of our *ideas*, and *Demonstration* nothing but the Perception of such agreement by the intervention of other *ideas*; our *moral ideas* as well as *mathematical*, being *Archetypes* themselves, and so adequate or complete *ideas*, all the agreement or disagreement we shall find in them, will produce *real* Knowledge as well as in *mathematical Figures*. That which is requisite to make our Knowledge *certain*, is the clearness of our *ideas*; and that which is required to make it *real*, is, that they answer their *Archetypes*.

But it will here be said, that if *moral* Knowledge be placed in the Contemplation of our own *moral ideas*; and those be of our own making, what strange notions will there be of *Justice* and *Temperance*? What confusion of *Virtues* and *Vices*, if every man may make what *ideas* of them he pleases? I answer, No confusion nor disorder at all,

in the things themselves, nor the reasonings about them, no more than there would be a change in the properties of Figures, and their Relations one to another, if a man should make a *Triangle* with four Corners, or a *Trapezium* with four Right Angles; that is, in plain English, change the names of the Figures, and call that by one name, which is called ordinarily by another. The change of name will indeed at first disturb him, who knows not what *idea* it stands for: but as soon as the Figure is drawn, the consequences and demonstration are plain and clear. Just the same is it in *moral* Knowledge: let a man have the *idea* of taking from others, without their consent, what they are justly possessed of, and call this Justice if he pleases; he that takes the name here, without the *idea* put to it, will be mistaken by joining another *idea* of his own to that name; but *strip* the *idea* of that name, or take it such as it is in the Speaker's mind; and the same things will agree to it, as if you called it Injustice.

One thing we are to take notice of, That where *God*, or any other Law-maker, has defined any *moral names*, there they have made the Essence of that *Species* to which that name belongs: and there it is not safe to apply, or use them otherwise. But in other cases it is bare impropriety of Speech, to apply them contrary to the common usage of the country they are used in.

Thirdly, But the complex *ideas* which we refer to *Archetypes* without us, may differ from them, and so our Knowledge about them may come short of being real : and such are our *ideas* of *Substances*. These must be taken from something, that does or has existed, and not be made up of *ideas* arbitrarily put together, without any real Pattern. Herein therefore is founded the Reality of our Knowledge concerning *Substances*, that all our complex *ideas* of them must be such, and such only, as are made up of such simple ones, as have been discovered to co-exist in Nature. And our *ideas* being thus true, tho' not perhaps very exact Copies, are the Subjects of *real* Knowledge of them. Whatever *ideas* we have, the agreement we find they have with others will be Knowledge. If those *ideas* be abstract, it will be *general* Knowledge : but to make it *real* concerning *Substances*, the *ideas* must be taken from the real Existence of things. Where-ever therefore we perceive the agreement or disagreement of our *ideas*, there is *certain Knowledge* : and where-ever we are sure those *ideas* agree with the Reality of Things, there is *certain real Knowledge*.

C H A P. V.

Of Truth in General.

TRUTH in the proper import of the word, signifies the joining or separating of signs ; as the things signified by them, do agree or disagree one with another. The joining or separating of signs, is what we call *Propositions* ; so that *Truth* properly belongs only to *Propositions* ; whereof there are *two* Sorts, *Mental* and *Verbal*, as there are *two* sorts of Signs commonly made use of, *Ideas* and *Words*.

'Tis difficult to treat of *mental* Propositions without *verbal* : because in speaking of *mental*, we must make use of *Words*, and then they become *verbal*. Again, men commonly in their thoughts and reasonings, use *words* instead of *ideas* ; especially if the subject of their meditation contains in it *complex ideas*. If we have occasion to form *mental* Propositions about *White*, *Black*, *Circle*, &c. we can, and often do, frame in our minds the *ideas* themselves, without reflecting on the *Names*. But when we would consider, or make Propositions about the more *complex ideas*, as of a *Man*, *Vitriol*, *Fortitude*, *Glory*, &c. we usually put the *name* for the *idea* ; because the *idea* these *names* stand for, being for the most part confused, imperfect, and undeter-

mined ; we reflect on the *names* themselves, as being more clear, certain, and distinct, and readier to occur to our thoughts, than pure *ideas* : and so we make use of these *words* instead of the *ideas* themselves, even when we would meditate and reason within our selves, and make tacit *mental Propositions*.

We must then observe two sorts of *Propositions*, that we are capable of making. *First, mental Propositions*, wherein the *ideas* in our Understandings are put together, or separated by the mind, perceiving or judging of their agreement or disagreement. *Secondly, Verbal Propositions*, which are words put together, or separated in affirmative or negative Sentences : so that *Proposition* consists in joining or separating Signs : and *Truth* consists in putting together, or separating these Signs, according as the things they stand for agree or disagree.

Truth as well as Knowledge may well come under the Distinction of *Verbal* and *Real* ; that being only *verbal Truth*, wherein Terms are joined according to the agreement or disagreement of the *ideas* they stand for, without regarding whether our *ideas* are such as really have, or are capable of having an Existence in Nature. But then it is they contain *real Truth*, when these Signs are joined, as our *ideas* agree ; and when our *ideas* are such as we know, are capable of having an Existence in Nature ; which in *Substances* we cannot know, but by

knowing that such have existed. *Truth* is the marking down in words the agreement or disagreement of *ideas*, as it is. *Falshood* is the marking down in words the agreement or disagreement of *ideas*, otherwise than it is; and so far as these *ideas* thus marked by Sounds, agree to their *Arche-types*, so far only is the *Truth* real. The Knowledge of this *Truth* consists in knowing what *ideas* the words stand for, and the Perception of the agreement or disagreement of those *ideas*, according as it is marked by those words.

Besides *Truth* taken in the strict Sense before-mentioned, there are other sorts of *Truths*: as, 1st, *Moral Truth*, which is, speaking things according to the persuasion of our own minds. 2^{dly}, *Metaphysical Truth*, which is nothing but the real Existence of things conformable to the *ideas* to which we have annexed their names.

These Considerations of *Truth* either having been before taken notice of, or not being much to our present purpose, it may suffice here only to have mentioned them.

C H A P. VI.

Of universal Propositions, their Truth and Certainty.

THE prevailing custom of using *Sounds* for *ideas*, even when men think and reason within their own breasts, makes the consideration of *Words* and *Propositions* so necessary a part of the Treatise of Knowledge, that it is very hard to speak intelligibly of the one, without explaining the other. And since *general Truths*, which with reason are most sought after, can never be well made known, and are seldom apprehended, but as conceived and expressed in words; it is not out of our way in the examination of our own Knowledge, to enquire into the *Truth* and *Certainty* of *universal Propositions*. But it must be observed, that *Certainty* is two-fold, *Certainty of Truth*, and *Certainty of Knowledge*.

Certainty of Truth is, when words are so put together in *Propositions*, as exactly to express the agreement or disagreement of the *ideas* they stand for; as really it is. *Certainty of Knowledge*, is to perceive the agreement or disagreement of *ideas* as expressed in any *Propositions*. Thus we usually call *Knowing*, or being certain of the *Truth* of any *Proposition*.

Now because we cannot be certain of the Truth of any *general Proposition*, unless we know the precise bounds and extent of the *Species* its terms stand for; it is necessary we should know the Essence of each *Species*, which is that which constitutes and bounds it. This in all *simple ideas* and *modes* is not hard to do: for in these the *real* and *nominal* Essence being the same, there can be no doubt how far the *Species* extends, or what things are comprehended under each Term: which it is evident are all that have an exact Conformity with the *ideas* it stands for, and no other. But in *substances* wherein a *real* Essence, distinct from the *nominal*, is supposed to constitute, and bound the *Species*, the extent of the general word is very uncertain; because not knowing this real Essence, we cannot know what is, or is not of that *Species*, and consequently what may, or may not with Certainty be affirmed of it.

Hence we may see that the names of Substances, when made to stand for *Species*, supposed to be constituted by *real Essences*, which we know not, are not capable of conveying Certainty to the Understanding. Of the *truth* of *general Propositions* made up of such Terms, we cannot be sure. For how can we be sure that this or that Quality is in *Gold*, for instance, when we know not what is, or is not *Gold*; that is, what has, or has not the *real Essence* of *Gold*, whereof we have no *idea* at all.

On the other side, the names of Substances when made use of for the *complex ideas* men have in their minds; tho' they carry a clear and determinate Signification with them, will not yet serve us to make many universal *Propositions*, of whose truth we can be certain : because the *simple ideas*, out of which the *complex* are combined, carry not with them any discoverable Connection or Repugnancy, but with a very few other *ideas*. For instance, *All Gold is fixed*, is a Proposition we cannot be certain of, how universally soever it be believed : for if we take the term *Gold* to stand for a *real Essence*, it is evident we know not what particular Substances are of that *Species*, and so cannot with Certainty affirm any thing universally of *Gold*. But if we make the term *Gold* stand for a *Species*, determined by its *nominal Essence*, be its *complex idea* what it will; for instance, a body *Yellow*, *Fusible*, *Malleable*, and *very heavy*; no Quality can with Certainty be denied or affirmed universally of it, but what has a discoverable connection, or inconsistency with that *nominal Essence* : *Fixedness*, for instance, having no necessary connection that we can discover with any *simple idea* that makes the *complex* one, or with the whole combination together; it is impossible that we should certainly know the truth of this Proposition, *All is Gold fixed*.

But is not this an universal certain Proposition, *All Gold is malleable*? I answer, it is so, if *Malle-*

ableness be a part of the *complex idea*, the word *Gold* stands for : but then here is nothing affirmed of *Gold*, but that, that Sound stands for an *idea*, in which *Malleableness* is contained. And such a sort of Truth and Certainty it is, to say, a *Centaur is four-footed*. I imagine amongst all the secondary Qualities of Substances, and the Powers relating to them, there cannot any two be named, whose necessary Co-existence or Repugnance to co-exist can be certainly known, unless in those of the same Sense, which necessarily exclude one another. Thus by the Colour we cannot certainly know what *Smell, Taste, &c.* any body is of. 'Tis no wonder then that Certainty is to be found but in very few general Propositions concerning Substances: our Knowledge of their Qualities and Properties goes very seldom farther than our Senses reach, or inform us. Inquisitive and observing men may by Strength of Judgment, penetrate farther; and on Probabilities taken from wary Observations, and Hints well laid together, often guess right at what Experience has not yet discovered to them: but this is but *guessing* still; it amounts only to *Opinion*; and has not that Certainty which is requisite to *Knowledge*.

To conclude: general Propositions of what kind soever, are then only capable of Certainty, when the Terms used in them, stand for such *ideas*, whose agreement or disagreement, as there

expressed, is capable to be discovered by us. And we are then certain of their Truth or Falshood, when we perceive the *ideas* they stand for, to agree or not agree, according as they are affirmed or denied one of another; whence we may take notice, that general Certainty is never to be found but in our *ideas*. Whenever we go to seek it elsewhere in Experiment or Observations without us, our Knowledge goes not beyond particulars.

C H A P. VII.

Of Maxims.

THERE are a sort of Propositions, which under the name of *Maxims* and *Axioms*, have passed for Principles of Science: and because they are self-evident, have been supposed *innate*. It may be worth while to enquire into the reason of their Evidence, and examine how far they influence our other Knowledge.

Knowledge being but the Perception of the agreement or disagreement of *ideas*, where that agreement or disagreement is perceived immediately by it self, without the Intervention or Help of any other *ideas*, there our *Knowledge is self-evident*: which being so, not only *Maxims*, but an infinite number of other Propositions partake equally with them in this Self-evidence. For,

In respect of *Identity* and *Diversity*, we may have as many self-evident Propositions as we have distinct *ideas*. 'Tis the first act of the mind, to know every one of its *ideas* by it self, and distinguish it from others. Every one finds in himself, that he knows the *ideas* he has; that he knows also when any one is in his Understanding, and what it is; and that when more than one are there, he knows them distinctly and unconfusedly, one from another; so that all affirmations, or negations concerning them, are made without any possibility of Doubt or Uncertainty; and must necessarily be assented to as soon as understood: that is, as soon as we have in our minds the *ideas* clear and distinct, which the Terms in the Proposition stand for. Thus a *Circle is a Circle*, *Blue is not Red*, are as self-evident Propositions, as those general ones, *What is is*, and *'tis impossible for the same thing to be and not to be*; nor can the Consideration of these *Axioms* add any thing to the Evidence, or Certainty of our Knowledge of them.

As to the agreement or disagreement of *Co-existence*, the mind has an immediate Perception of this, but in very few. And therefore, in this sort we have very little *intuitive* Knowledge: tho', in some few Propositions we have. *Two Bodies cannot be in the same Place*, I think is a self-evident Proposition. The *idea* of fitting a place equal to

the contents of its superficies being annexed to our *idea* of Body.

As to the Relations of *Modes*, Mathematicians have framed many Axioms concerning that one Relation of Equality, as *Equals taken from Equals, the Remainder will be equal*, &c. which however received for Axioms, yet I think have not a clearer self-evidence than these, that *One and One are equal to Two*: that if from the five Fingers of one Hand, you take two, and from the five Fingers of the other Hand two, the remaining Numbers will be equal. These and a thousand other such Propositions may be found in Numbers, which carry with them an equal, if not greater clearness than those mathematical Axioms.

As to *real Existence*, since that has no connection with any other of our *ideas*, but that of our selves, and of a *first Being*; we have not so much as a demonstrative, much less a self-evident Knowledge, concerning the *real Existence* of other Beings.

In the next place let us consider what influence these Maxims have upon the other parts of our Knowledge. The rules established in the schools, that all reasonings are *ex praecognitis et praekoncessis*, seem to lay the Foundation of all other Knowledge in these Maxims, and to suppose them to be *praecognita*; whereby I think is meant two things: 1st, That these Axioms are those truths that are

first known to the mind : 2dly, That upon them the other parts of our Knowledge depend.

First, That these Axioms are not the truths first known to the mind, is evident from experience ; for who knows not that a *child perceives that a stranger is not its mother*, long before he knows, that it is impossible for the same thing to be and not to be. And how many truths are there about Numbers, which the mind is perfectly acquainted with, and fully convinced of, before it ever thought on these general Maxims? Of this the Reason is plain ; for that which makes the mind assent to such Propositions, being nothing but the Perception it has of the agreement or disagreement of its *ideas*, according as it finds them affirmed or denied in words one of another ; and every *idea* being known to be what it is, and every two distinct *ideas* not to be the same, it must necessarily follow, that such self-evident truths must be first known, which consist of *ideas*, that are first in the mind ; and the *ideas* first in the mind, it is evident, are those of particular things ; from whence, by slow degrees the Understanding proceeds to some few general ones, which being taken from the ordinary and familiar objects of Sense, are settled in the mind, with general names to them. Thus particular *ideas* are first received and distinguished, and so Knowledge got about them ; and next to them the less

general or specifick, which are next to particular ones.

For *abstract ideas* are not so obvious or easy to *Children*, or the yet unexercised mind, as particular ones. If they seem so to grown *Men*, 'tis only because by constant and familiar use they are made so.

Secondly, From what has been said, it plainly follows, that these magnified *Maxims* are not the principles and foundations of all our other Knowledge: for if there be a great many other truths, as self-evident as they, and a great many that we know before them, it is impossible that they should be the Principles, from which we deduce all other Truths. Thus, that *One and Two are equal to Three*, is as evident, and easier known than that the *Whole is equal to all its Parts*. Nor after the Knowledge of this Maxim, do we know that *One and Two are equal to Three*, better, or more certainly than we did before. For if there be any odds in these *ideas*, the *ideas* of *Whole*, and *Parts*, are more obscure, or at least more difficult to be settled in the mind, than those of *One*, *Two* and *Three*. Either therefore all Knowledge does not depend on certain *Praecognita*, or general Maxims, called Principles; or else, such as these, (*That One and One are Two, that Two and Two are Four, &c.*) and a great part of Numeration will be so. To which if we add all the self-evident propositions

that may be made about all our distinct *ideas* ; Principles will be almost infinite, at least innumerable, which men arrive to the Knowledge of, at different ages ; and a great many of those innate Principles, they never come to know all their lives. But whether they come in view early or later, they are all known by their native evidence, and receive no light, nor are capable of any proof one from another ; much less the more particular, from the more general ; or the more simple from the more compounded : the more simple and less abstract, being the most familiar, and the easier and earlier apprehended.

These *general Maxims* then, are only of use in disputes, to stop the mouths of wranglers ; but not of much use to the discovery of unknown Truths ; or to help the mind forwards in its search after Knowledge. Several general Maxims, are no more than bare verbal Propositions ; and teach us nothing but the respect and import of names, one to another ; as, *The Whole is equal to all its Parts* : what real Truth does it teach us more, than what the signification of the word *Totum* or *whole* does of it self import ?

But yet, *Mathematicians* do not without reason place this, and some other such amongst their *Maxims* ; that their scholars having in the entrance perfectly acquainted their thoughts with these Propositions made in such general Terms, may have

them ready to apply to all particular cases: not that if they be equally weighed, they are more clear and evident, than the particular instances they are brought to confirm; but that being more familiar to the mind, the very naming them is enough to satisfy the Understanding. But this I say, is more from our custom of using them, than the different evidence of the things.

So that, if rightly consider'd, I think we may say, that where our *ideas* are clear and distinct, there is little, or no use at all of these *Maxims*, to prove the agreement or disagreement of any of them. He that cannot discern the truth, or falsehood of such Propositions, without the help of these and the like *Maxims*, will not be helped by these *Maxims* to do it. He that needs any proof to make him certain, and give his assent to this Proposition, that *Two are equal to Two*, or that *White is not Black*, will also have need of a proof to make him admit that, *What is, is, or, That it is impossible for the same thing to be and not to be.*

And as these *Maxims* are of little use, where we have clear and distinct *ideas*; so they are of dangerous use, where our *ideas* are confused, and where we use words that are not annexed to clear and distinct *ideas*; but to such as are of a loose and wandering signification, sometimes standing for one, and sometimes for another *idea*, from which follows Mistake and Error, which these Ma-

xims (brought as proofs to establish Propositions wherein the terms stand for confused and uncertain *ideas*) do by their authority confirm and rivet.

C H A P. VIII.

Of trifling Propositions.

TH E R E are universal Propositions, which tho' they be certainly true, yet add no light to our Understandings, bring no increase to our Knowledge : such are,

First, All *purely identical Propositions*. These at first *blush*, appear to contain no Instruction in them : for when we affirm the same term of it self, it shews us nothing but what we must certainly know before, whether such a Proposition be either made by, or proposed to us.

Secondly, Another sort of trifling Propositions is, when a *part of the complex idea is praedicated of the name of the whole* ; a part of the definition, of the word defined, as, *Lead is a Metal, Man an Animal*. These carry no information at all, to those who know the complex *ideas*, the names *Lead*, and *Man* stand for : indeed to a man that knows the signification of the word *Metal*, and not of the word *Lead*, it is a shorter way to explain the signification of the word *Lead*, by saying it is a *Metal*,

than by enumerating the simple *ideas* one by one, which make up the complex *idea* of *Metal*.

Alike trifling it is to praedicate any one of the simple *ideas* of a complex one, of the name of the whole complex *idea*; as *all Gold is fusible*; for fusibility being one of the simple *ideas* that goes to the making up the complex one, the sound *Gold* stands for; what can it be but playing with sounds, to affirm that of the name *Gold*, which is comprehended in its received signification? What instruction can it carry, to tell one that which he is supposed to know before? for I am supposed to know the signification of the word another uses to me, or else he is to tell me.

The general Propositions that are made about Substances, if they are certain, are for the most part but *trifling*; and if they are instructive, uncertain; and such as we have no Knowledge of their real truth, how much soever constant Observation and Analogy may assist our Judgments in *Guessing*. Hence it comes to pass, that one may often meet with very clear and coherent discourses, that amount yet to nothing. For names of substantial Beings, as well as others, having settled Significations affixed to them, may with great truth be joined negatively and affirmatively in Propositions, as their Definitions make them fit to be so joined; and Propositions consisting of such terms, may with the same clearness be deduced

one from another, as those that convey the most real truths ; and all this without any Knowledge of the nature or reality of things existing without us. Thus he that has learnt the following words, with their ordinary acceptations annexed to them, *viz. Substance, Man, Animal, Form, Soul, Vegetative, Sensitive, Rational*, may make several undoubted Propositions about the Soul, without any Knowledge at all of what the Soul really is. And of this sort a man may find an infinite number of Propositions, Reasonings and Conclusions in books of *Metaphysics, School-Divinity*, and some part of *Natural Philosophy* ; and after all, know as little of *God, Spirits, or Bodies*, as he did before he set out.

Thirdly, The worst sort of *Trifling* is, to use words loosely and uncertainly, which sets us yet farther from the certainty of Knowledge we hope to attain to by them, or find in them. That which occasions this, is, that men may find it convenient to shelter their ignorance or obstinacy, under the obscurity or perplexedness of their terms ; to which, perhaps, inadvertency and ill custom does in many men much contribute.

To conclude, barely *verbal Propositions* may be known by these following marks.

First, All Propositions, wherein two abstract terms are affirmed one of another, are barely about the signification of Sounds. For since no abstract

idea can be the same with any other, but it self; when its abstract name is affirmed of any other term, it can signify no more but this, that it may or ought to be called by that name; or that these two names signify the same *idea*.

Secondly, All Propositions, wherein a part of the complex *idea*, which any term stands for, is predicated of that term, are only *verbal*: and thus all Propositions wherein more comprehensive terms called *Genera*, are affirmed of subordinate, or less comprehensive, called *Species*, or *Individuals*, are barely *verbal*. When by these two rules we examine the Propositions that make up the discourses we ordinarily meet with, both in and out of books; we shall, perhaps find, that a greater part of them, than is usually suspected, are purely about the Signification of words, and contain nothing in them but the use and application of these Signs.

CH A P. IX.

Of our Knowledge of Existence.

HITHERTO we have only consider'd the *Essences* of things, which being only *abstract ideas*, and thereby removed in our thoughts from particular Existence, give us no Knowledge of *Existence* at all. We proceed now to enquire con-

cerning our *Knowledge of the Existence* of things and how we come by it.

I say then, that we have the Knowledge of our *own Existence*, by *Intuition*; of the *Existence of God*, by *Demonstration*; and of *other Things*, by *Sensation*. As for our *own Existence*, we perceive it so plainly, that it neither needs, nor is capable of any proof. I think, I reason; I feel pleasure and pain: can any of these be more evident to me than my *own Existence*? If I doubt of all other things, that very *Doubt* makes me perceive my *own Existence*, and will not suffer me to doubt of that. If I know I doubt, I have as certain a Perception of the *Thing* Doubting, as of that *Thought* which I call *Doubt*. Experience then convinces us that we have an *intuitive Knowledge of our own Existence*; and an internal infallible Perception that we are. In every act of Sensation, Reasoning or Thinking, we are conscious to our selves of our own Being, and in this matter come not short of the highest degree of *Certainty*.

C H A P. X.

Of our Knowledge of the Existence of a God.

TH O' *God* has given us no *innate ideas* of himself, yet having furnished us with those faculties our minds are endowed with, he hath not left himself without a witness, since we have Sense,

Perception, and Reason, and cannot want a clear proof of him, as long as we carry ourselves about us: nor can we justly complain of our ignorance in this great point, since he has so plentifully provided us with means to discover, and know him, so far as is necessary to the end of our Being, and the great concernment of our Happiness. But tho' this be the most obvious truth that Reason discovers, yet it requires Thought and Attention; and the mind must apply it self to a regular deduction of it, from some part of our *intuitive* Knowledge; or else we shall be as ignorant of this as of other Propositions which are in themselves capable of clear Demonstration. To shew therefore, that we are capable of knowing, that is, *being certain*, that *there is a God*; and how we may come by this certainty, I think we need go no farther than our selves, and that undoubted Knowledge we have of our own *Existence*. I think it is beyond question, that *man has a clear perception of his own being*: he knows certainly that he exists, and that he is something. In the next place, man knows by an *intuitive* Certainty, that *bare nothing can no more produce any real being, than it can be equal to two right Angles*. If therefore we know there is some real Being, it is an evident Demonstration, that *from Eternity there has been something*; since what was not from Eternity, had a beginning; and what had a beginning, must be

produced by something else. Next it is evident, *that what has its being from another, must also have all that which is in, and belongs to its being from another too*: all the powers it has must be owing to, and received from the same source. This eternal source then of all Being must be also the source and original of all Power; and so this *Eternal Being* must be also the *most Powerful*.

Again, man finds in himself *Perception* and *Knowledge*: we are certain then that there is not only some Being, but some knowing, intelligent Being in the world. There was a time then, when there was no knowing Being, or else there has been a knowing Being from Eternity. If it be said, there was a time when that Eternal Being had no Knowledge; I reply, that then it is impossible there should have ever been any Knowledge. It being as impossible that things wholly void of Knowledge, and operating blindly, and without any Perception, should produce a knowing Being, as it is that a Triangle should make it self three Angles, bigger than two right ones.

Thus from the consideration of ourselves, and what we infallibly find in our own constitutions, our reason leads us to the knowledge of this certain and evident Truth, that *there is an eternal, most powerful, and knowing Being*, which, whether any one will call God, it matters not. The thing is evident, and from this *idea* duly conside-

red, will easily be deduced all those other *Attributes* we ought to ascribe to this *eternal Being*.

From what has been said, it is plain to me, we have a more certain knowledge of the Existence of a *God*, than of any thing our senses have not immediately discovered to us. Nay, I presume I may say, that we more certainly know that there is a *God*, than that there is any thing else without us. When I say, we know, I *mean*, there is such a Knowledge within our reach, which we cannot miss, if we will but apply our minds to that, as we do to several other Enquiries.

It being then unavoidable for all rational Creatures to conclude, that *something has existed from Eternity*; let us next see what *kind of Thing* that must be. There are but two sorts of Beings in the world, that man knows or conceives: 1st, Such as are purely material, without sense or perception, as the clippings of our beards, and parings of our nails. 2^{dly}, Sensible perceiving Beings; such as we find our selves to be. These two sorts we shall hereafter call *Cogitative* and *Incogitative* Beings: which to our present purpose are better than *material* and *immaterial*.

If then there must be something *Eternal*, it is very obvious to Reason, that it must necessarily be a *Cogitative* Being; because it is as impossible to conceive that ever bare *Incogitative* Matter should produce a *thinking* intelligent Being, as that nothing

should of it self produce Matter. Let us suppose any parcel of matter *Eternal*, we shall find it in it self unable to produce any thing. Let us suppose its parts firmly at rest together: if there were no other Being in the world, must it not eternally remain so, a dead unactive lump? Is it possible to conceive it can add motion to it self, or produce any thing? *Matter* then by its own strength cannot produce in it self, so much as *Motion*. The motion it has, must also be from Eternity, or else added to Matter by some other Being, more powerful than Matter. But let us suppose Motion eternal too, yet Matter, *Incogitative* Matter and Motion could never produce *Thought*: *Knowledge* will still be as far beyond the power of *motion* and *matter* to produce, as matter is beyond the power of Nothing to produce. Divide *matter* into as minute parts as you will, vary the figure and motion of it, as much as you please, it will operate no otherwise upon other Bodies of proportionable bulk, than it did before this division. The minutest particles of Matter, knock, impel, and resist one another, just as the greater do, and that is all they can do, so that if we will suppose *Nothing Eternal*, *Matter can never begin to be*. If we suppose *bare Matter* without Motion *Eternal*, *Motion can never begin to be*. If we suppose only *Matter* and Motion *Eternal*, *Thought can never begin to be*: for it is impossible to conceive, that Matter, either with or without

Motion, could have originally in and from it self, Sense, Perception, and Knowledge, as is evident from hence, that then Sense, Perception, and Knowledge, must be a Property eternally inseparable from Matter, and every particle of it. Since therefore whatsoever is the first eternal being, must necessarily be *Cogitative* : and whatsoever is first of all things, must necessarily contain in it, and actually have, at least, all the perfections that can ever after exist, it necessarily follows, that the *First Eternal Being cannot be Matter.* -

If therefore it be evident that something necessarily must exist from Eternity, it is also as evident that, that *Something must necessarily be a cogitative Being.* For it is as impossible that *incogitative Matter* should produce a *cogitative Being*, as that nothing, or the negation of all Being should produce a positive Being or Matter.

This discovery of the necessary Existence of an eternal Mind, does sufficiently lead us into the Knowledge of God. For it will hence follow, that all other knowing Beings, that have a beginning, must depend on him, and have no other ways of Knowledge or extent of Power, than what he gives them : and therefore if he made those, he made also the less excellent pieces of this Universe, all *inanimate Bodies*, whereby his *Omniscience, Power, and Providence* will be establish'd; and from thence all his other attributes necessarily follow.

C H A P. XI.

Of our Knowledge of the Existence of other Things.

THE Knowledge of our own Being we have by *Intuition*: the Existence of a God, *Reason* clearly makes known to us, as has been shewn: the *Knowledge of the Existence* of any other thing, we can have only by Sensation; for there being no necessary Connection of *real Existence* with any *idea* a man hath in his memory; nor of any other Existence, but that of God, with the Existence of any particular man; no particular man can know the Existence of any other Being, but only, when by actually operating upon him, it makes it self be perceived by him. The having the *idea* of any thing in our mind, no more proves the Existence of that thing, than the picture of a man evidences his being in the world, or the visions of a dream, make thereby a true history. It is therefore the actual receiving of *ideas* from without, that gives us notice of the Existence of other things, and makes us know that something doth exist at that time without us, which causes that *idea* in us, tho' perhaps we neither know nor consider how it does it; for it takes not from the *Certainty* of our Senses, and the *ideas* we receive by

them, that we know not the manner wherein they are produced. This *Notice* we have by our *Senses* of the existing of things without us, tho' it be not altogether so certain as *Intuition* and *Demonstration*, deserves the name of Knowledge, if we persuade our selves that our faculties act and inform us right, concerning the Existence of those objects that affect them. But besides the assurance we have from our *Senses* themselves, that they do not err in the Information they give us of the Existence of things without us, we have other concurrent Reasons : as, *First*, It is plain those Perceptions are produced in us, by exterior Causes affecting our Senses, because those that want the *Organs* of any *sense*, never can have the *ideas* belonging to that sense produced in their minds. This is too evident to be doubted, and therefore we cannot but be assured, that they come in by the Organs of that Sense, and no other way.

Secondly, Because we find sometimes that we cannot avoid the having those *ideas* produced in our minds ; when my eyes are shut, I can at pleasure recall to my mind the *ideas* of *Light* or the *Sun*, which former Sensations had lodged in my memory ; but if I turn my eyes towards the *Sun*, I cannot avoid the *ideas* which the *Light* or the *Sun* then produces in me : which shews a manifest difference between those *ideas* laid up in the memory, and such as force themselves upon us, and we

cannot avoid having. And therefore it must needs be some *exterior* cause, whose efficacy I cannot resist, that produces those *ideas* in my mind, whether I will or no.

Besides, there is no body who doth not perceive the difference in himself, between actually looking upon the *Sun*, and contemplating the *idea* he has of it in his memory; and therefore he hath certain Knowledge, that they are not both memory or fancy; but that actual seeing has a cause without.

Thirdly, Add to this, that many *ideas* are produced in us with pain, which we afterwards remember without the least offence. Thus the pain of *Heat* or *Cold*, when the *idea* of it is received in our minds, gives us no disturbance; which when felt was very troublesome; and we remember the pain of *Hunger*, *Thirst*, *Head-Ach*, &c. without any pain at all; which would either never disturb us, or else constantly do it, as often as we thought of it, were there nothing more but *ideas* floating in our minds, and appearances entertaining our fancies, without the real Existence of things affecting us from abroad.

Fourthly, Our senses in many cases bear witness to the truth of each others report, concerning the Existence of sensible things without us: he that doubts when he sees a *Fire*, whether it be *real*, may, if he please, feel it too; and by the exquisite

pain he will be convinced, that it is not a bare *i-
dea* or *phantom*.

If after all this, any one will be so *sceptical*, as to distrust his senses, and to question the Existence of all things, or our Knowledge of any thing ; let him consider that the Certainty of things existing in *re-
rum natura*, when we have the testimony of our senses for it, is not only as great as our frame can attain to, but as our condition needs. For our *fa-
culties* being not suited to the full Extent of Being, nor a clear comprehensive knowledge of all things, but to the preservation of us, in whom they are, and accommodated to the use of life ; they serve our purpose well enough, if they will but give us certain notice of those things, that are convenient or inconvenient to us. For he that sees a *Candle* burning, and has experimented the force of the flame, by putting his finger in it, will little doubt, that this is something existing without him, which does him harm and puts him to pain, which is assurance enough ; when no man requires greater certainty to govern his actions by, than what is as certain as his actions themselves : so that this evidence is as great as we can desire, being as certain to us as our pleasure or pain, that is, *Happiness* or *Misery*, beyond which we have no concernment either of Knowing, or Being.

In fine, when our senses do actually convey into

our Understandings any *idea*, we are assured that there is something at that time *really existing* without us. But this Knowledge extends only as far as the present testimony of our senses, employed about particular Objects, that do then affect them, and no farther. My seeing a *Man* a minute since, is no certain argument of his present Existence.

As when our senses are actually employed about any Object, we know that it does exist; so by our memory we may be assured, that heretofore things that affected our *senses*, *have existed*: and thus we have the Knowledge of the past Existence of several things; whereof our *senses* having inform'd us, our memories still retain the *ideas*: and of this we are past all doubt, so long as we remember well.

As to the Existence of spirits, our having *ideas* of them, does not make us know, that any such things do exist without us; or that there are any *finite spirits*; or any other spiritual beings but the Eternal God. We have ground from *Revelation*, and several other reasons, to believe with assurance, that there are such Creatures: but our senses not being able to discover them, we want the means of knowing their particular Existence; for we can no more know that there are *finite spirits* really existing, by the *idea* we have of such Beings, than by the *ideas* any one has of *Faries* or *Centaurs*, he

can come to know that things answering those *ideas*, do really exist.

Hence we may gather, that there are *two sorts* of Propositions, *One* concerning the Existence of any thing answerable to such an *idea*; as that of an *Elephant, Phoenix, Motion, or Angel, viz.* Whether such a thing does any where exist: and this Knowledge is only of *Particulars*, and not to be had of any thing without us, but only of God, any other way than by our *senses*.

• *Another sort* of Proposition is, wherein is expressed the agreement or disagreement of our *abstract ideas*, and their dependence one on another. And these may be *universal* and certain: so having the *idea* of *God*, and my *self*, of *Fear* and *Obedience*, I cannot but be sure that *God is to be feared and obeyed by me*; and this Proposition will be certain concerning *Man* in general; if I have made an *abstract idea* of such a *species*, whereof I am one particular. But such a Proposition, how certain soever, proves not to me the Existence of men in the world; but will be true of all such Creatures, whenever they do exist: which *Certainty* of such general Propositions, depends on the agreement or disagreement discoverable in those *abstract ideas*. In the former case, our Knowledge is the consequence of the *Existence of things*, producing *ideas* in our minds by our senses: in the latter, the con-

sequence of the *ideas* that are in our *minds*, and producing these general Propositions, many whereof are called *Eternæ veritates* ; and all of them indeed are so, not from being written all, or any of them in the minds of all men, or that they were any of them Propositions in any ones mind, till he having got the *abstract ideas*, joined or separated them by affirmation or negation : but wherefoever we can suppose such a Creature as *Man* is, endowed with such faculties, and thereby furnished with such *ideas* as we have ; we must conclude, he must needs, when he applies his thoughts to the consideration of his *ideas*, know the truth of certain Propositions, that will arise from the agreement or disagreement he will perceive in his own *ideas*. Such Propositions being once made about *abstract ideas*, so as to be true, they will, whenever they can be supposed to be made again, at any time past, or to come, by a mind having those *ideas*, always be true. For names being supposed to stand perpetually for the same *ideas* ; and the same *ideas* having immutably the same habitudes one to another ; Propositions concerning any *abstract ideas* that are once true, must needs be *eternal Verities*.

C H A P. XII.

Of the Improvement of our Knowledge.

IT being the received opinion amongst men of letters, that *maxims are the foundations of all Knowledge*, and that Sciences are each of them built upon certain *Praecognita*, from whence the Understanding was to take its rise, and by which it was to conduct itself in its inquiries in the matters belonging to that *science*, the beaten road of the schools has been to lay down in the beginning one or more general Propositions, called *Principles*, as foundations whereon to build the Knowledge, that was to be had of that subject.

That which gave occasion to this way of proceeding, was, I suppose, the good success it seemed to have in *Mathematicks*, which of all other sciences, have the greatest certainty, clearness, and evidence, in them. But if we consider it, we shall find that the great *advancement* and certainty of *real Knowledge* men arrived to in these *sciences*, was not owing to the influence of these Principles, but to the clear distinct and compleat *ideas* their thoughts were employed about; and the relation of *Equality* and *Excess*, so clear between some of them, that they had an *intuitive Knowledge*; and by that a

way to discover it in others : and this without the help of those *maxims*. For I ask, Is it not possible for a lad to know that his whole body is bigger than his little finger, but by virtue of this Axiom, *the whole is bigger than the part* ; nor be assured of it, till he has learned that *maxim* ? Let any one consider from what has been elsewhere said, which is known first and clearest by most people, the *particular* instance, or the *general* rule ; and which it is that gives life and birth to the other. These *general rules* are but the comparing our more general and *abstract ideas*, which *ideas* are made by the mind, and have names given them, for the easier dispatch in its reasonings : but Knowledge began in the mind, and was founded on *Particulars*, tho' afterwards perhaps no notice be taken thereof : it being natural for the mind, to lay up those general notions, and make the proper use of them, which is to disburthen the memory of the cumbersome load of Particulars.

The way to *improve in Knowledge*, is not to swallow Principles, with an Implicit Faith, and without Examination, which would be apt to mislead men, instead of guiding them into truth ; but to get and fix in our minds, *clear* and *complete ideas*, as far as they are to be had, and annex to them *proper* and *constant* names : and thus barely by considering our *ideas*, and comparing them together, observing their agreement or disagreement,

their habitudes and relations, we shall get more true and clear Knowledge by the conduct of this one *Rule*, than by taking up *Principles*, and thereby putting our minds into the disposal of others.

We must therefore, if we will proceed as *Reason* advises, adapt our methods of Inquiry, to the nature of the *ideas* we examine, and the truth we search after. *General* and *certain Truths*, are only founded in the habitudes and relations of *abstract ideas*. Therefore a sagacious methodical application of our thoughts for the finding out these Relations, is the only way to discover all that can with Truth and Certainty be put into general Propositions. By what steps we are to proceed in these, is to be learned in the schools of the *Mathematicians*, who from very plain and easy beginnings, by gentle degrees, and a continued chain of Reasonings, proceed to the discovery and demonstration of *Truths*, that appear at first sight beyond humane Capacity. This, I think I may say, that if other *ideas*, that are *real* as well as *nominal* Essences of their *species*, were pursued in the way familiar to *Mathematicians*, they would carry our thoughts farther and with greater Evidence and Clearness, than possibly we are apt to imagine. This gave me the Confidence to advance that Conjecture, which I suggest, *Chapter* the Third, viz. that *Morality is capable of Demonstration*, as well as *Mathematicks* : for *moral ideas* being real

Essences, that have a discoverable Connexion and Agreement one with another, so far as we can find their Habitues and Relations, so far we shall be possessed of *real* and *general Truths*.

In our Knowledge of *Substances*, we are to proceed after a quite different method : the bare Contemplation of their *abstract ideas* (which are but *nominal* Essences) will carry us but a very little way, in the search of Truth and Certainty. Here *Experience* must teach us what *Reason* cannot : and it is by trying alone, that we can certainly know, what other Qualities co-exist with those of our *complex idea* ; (for instance) Whether that *Yellow heavy fusible* Body, I call *Gold*, be *malleable*, or no ; which Experience (however it prove in that particular body we examine) makes us not certain that it is so in all, or any other *yellow, heavy, fusible* Bodies, but that which we have tried ; because it is no consequence one way or the other from our *complex idea* : the necessity or inconsistency of *Malleability*, hath no visible Connexion with the combination of that *Colour, Weight, and Fusibility* in any Body. What I have here said of the *nominal* Essence of *Gold*, supposed to consist of a Body of such a determinate *Colour, Weight, and Fusibility*, will hold true, if other Qualities be added to it. Our Reasonings from those *ideas*, will carry us but a little way in the certain Discovery of the other *Properties*, in those Masses of Matter where-

in all those are to be found. As far as our Experience reaches, we may have certain knowledge, and no farther.

I deny not, but a man accustomed to rational and regular Experiments, shall be able to see farther into the nature of Bodies, and their unknown Properties, than one that is a stranger to them. But this is but *Judgment* and *Opinion*, not *Knowledge* and *Certainty*. This makes me suspect that *Natural Philosophy* is not capable of being made a *science*: from Experiments and historical Observations we may draw Advantages of Ease and Health, and thereby increase our stock of Conveniences for this Life: but beyond this, I fear our *Talents* reach not; nor are our faculties, as I guess, able to advance.

From whence it is obvious to conclude, that since our faculties are not fitted to penetrate the *real Essences* of Bodies, but yet plainly to discover to us the *Being* of a *God*, and the *Knowledge* of our *selves*; enough to give us a clear Discovery of our *Duty*, and great Concernment; it will become us as rational Creatures, to employ our Faculties, about what they are most adapted to, and follow the Direction of Nature, where it seems to point us out the way. For it is rational to conclude, that our proper Employment lies in those Inquiries, and that sort of Knowledge which is most suited to our natural Capacities, and carries in it

our greatest interest, that is, *the condition of our eternal State*: and therefore it is, I think, that *mortality* is the proper science and business of *mankind* in general (who are both concerned and fitted to search out their *Summum Bonum*) as several *Arts* conversant about the several parts of nature, are the lot and private talent of particular men, for the common use of human life, and their own particular Subsistence in this World.

The ways to enlarge our Knowledge, as far as we are capable, seem to me to be *these two*: the *first* is to get and settle in our minds, as far as we can, clear, distinct, and constant *ideas* of those things we would consider and know. For it being evident that our Knowledge cannot exceed our *ideas*; where they are either imperfect, confused, or obscure, we cannot expect to have certain, perfect, or clear Knowledge. The *other* is the art of finding out the intermediate *ideas*, which may shew us the Agreement or Repugnancy of other *ideas*, which cannot be immediately compared.

That these *two* (and not the relying on *maxims*, and drawing consequences from some general Propositions) are the right method of improving our Knowledge, in the *ideas* of other *modes*, besides those of Quantity, the Consideration of *mathematical* Knowledge will easily inform us. Where *First*, we shall find that he that has not clear and perfect *ideas* of those *Angles* or *Figures*, of which he

desires to know any thing, is utterly thereby incapable of any Knowledge about them. Suppose a man not to have an exact *idea* of a *right Angle*, *Scalenum*, or *Trapezium*, and it is clear, that he will in vain seek any Demonstration about them. And *farther* it is evident, that it was not the influence of *maxims* or *principles*, that has led the masters of this *Science* into those wonderful Discoveries they have made. Let a man of good parts know all the *maxims* of *Mathematicks* never so well, and contemplate their Extent and Consequences as much as he pleases, he will by their assistance, I suppose, scarce ever come to know, that the square of the *Hypotenuse*, in a *right-angled Triangle*, is equal to the squares of the two other sides. This, and other *mathematical* Truths have been discovered by the Thoughts, otherwise applied. The mind had other objects, other views before it, far different from those *maxims* which men well enough acquainted with those received *Axioms*, but ignorant of their method, who first made these Demonstrations, can never sufficiently admire.

C H A P. XIII.

Some further Considerations concerning Knowledge.

OUR *Knowledge*, as in other things, so in this, has a great Conformity with our *sight*, that it is neither wholly *necessary*, nor wholly *voluntary*. Men that have senses cannot chuse but receive some *ideas* by them ; and if they have memory, they cannot but retain some of them ; and if they have any distinguishing Faculty, cannot but perceive the Agreement or Disagreement of some of them, one with another. As he that has Eyes, if he will open them by day, cannot but see some Objects, and perceive a difference in them ; yet he may chuse whether he will turn his Eyes towards an Object ; curiously survey it, and observe accurately all that is visible in it. But what he does see, he cannot see otherwise than he does : it depends not on his *Will*, to see that *Black* which appears *Yellow*. Just thus it is with our *Understanding* : all that is voluntary in our Knowledge, is the employing or with-holding any of our Faculties from this or that sort of *Objects* ; and a more or less accurate Survey of them : but they being employed, our *Will* hath no power to determine

the Knowledge of the mind, one way or other. That is done only by the *Objects* themselves, as far as they are clearly discovered.

Thus he that has got the *ideas* of *Numbers*, and hath taken the pains to compare *One*, *Two* and *Three*, to *Six*, cannot chuse but know that they are equal. He also that hath the *idea* of an intelligent, but weak and frail *Being*, made by, and depending on another, who is *Eternal*, *Omnipotent*, perfectly *wise* and *good*, will as certainly know, that *man* is to honour, fear, and obey *God*, as that the Sun shines when he sees it. But yet these Truths, being never so certain, never so clear, he may be ignorant of either or both of them, who will not take the pains to employ his Faculties as he should, to inform himself about them.

C H A P. XIV.

Of Judgment.

THE *Understanding Faculties* being given to man, not barely for Speculation, but also for the Conduct of his Life: a man would be at a great loss if he had nothing to direct him but what has the Certainty of true Knowledge. He that will not *eat* till he has Demonstration that it will nourish him; nor *stir*, till he is infallibly as-

sured of success in his business, will have little else to do but *sit still* and *perish*.

Therefore as *God* hath set some things in broad *Day-light* ; as he has given us some certain Knowledge, tho' limited to a few things, in comparison, (probably as a taste of what *intellectual* creatures are capable of, to excite in us a desire and endeavour after a better State) so in the greatest part of our Concernment, he has afforded us only the *Twilight*, as I may so say, of *Probability*, suitable to that state of *Mediocrity* and *Probationership*, he has been pleased to place us in here.

The Faculty which *God* has given *man* to enlighten him, next to certain Knowledge, is *Judgment*, whereby the mind takes its *idea* to agree or disagree, without perceiving a demonstrative Evidence in the Proofs. The mind exercises this Judgment, sometimes out of *Necessity*, where demonstrative Proofs, and certain Knowledge are not to be had ; and sometimes out of *Laziness*, Unskilfulness, or *Haste*, even where they are to be had.

This Faculty of the Mind when it is exercised immediately about things, is called *Judgment* ; when about truths delivered in words, is most commonly called *Assent*, or *Dissent*. Thus the mind has *two Faculties* conversant about Truth and Falseness : 1st, *Knowledge*, whereby it certainly perceives, and is undoubtedly satisfied of the Agree-

ment or Disagreement of any *ideas*. 2dly, *Judgment*, which is the putting *ideas* together, or separating them from one another in the mind, when their certain Agreement or Disagreement is not *perceived*, but presumed to be so. And if it so unites or separates them, as in reality things are, it is *right Judgment*.

C H A P. XV.

Of Probability.

P*robability* is nothing but the appearance of the Agreement or Disagreement of two *ideas*, by the Intervention of Proofs, whose Connexion is not constant, and immutable; or is not perceived to be so; but is, or appears for the most part to be so, and is enough to induce the mind to judge the Proposition to be *true* or *false*, rather than the contrary.

Of *Probability* there are degrees from the neighbourhood of *Certainty* and *Demonstration*, quite down to *Improbability* and *Unlikeliness*, even to the confines of *Impossibility*: and also degrees of *Assent* from certain Knowledge and what is next it, full Assurance and Confidence, quite down to Conjecture, Doubt, Distrust, and Disbelief.

That Proposition then is *probable*, for which there are arguments or proofs to make it pass, or be received for *true*. The Entertainment the mind gives to this sort of Propositions, is called *Belief*, *Assent*, or *Opinion*. *Probability* then being to supply the defect of our Knowledge, is always conversant about Propositions, whereof we have no *Certainty*, but only some *Inducements* to receive them for true. The *Grounds* of it are in short *these two* following.

First, The *Conformity* of any thing with our own Knowledge, Experience, or Observation.

Secondly, The *Testimony* of others, vouching their Observation and Experience. In the *Testimony* of others, is to be considered ; 1st, The Number ; 2^{dly}, The Integrity ; 3^{dly}, The Skill of the Witnesses ; 4^{thly}, The Design of the Author, if it be a Testimony cited out of a Book ; 5^{thly}, The Consistency of the Parts and Circumstances of the Relation ; 6^{thly}, Contrary Testimonies.

The mind before it rationally *assents* or *dissents* to any probable Proposition, ought to examine all the grounds of *Probability*, and see how they make, more or less, for or against it ; and upon a due balancing of the whole, reject or receive it, with a more or less firm *Assent*, according to the Preponderancy of the greater *Grounds of Probability*, on one side or the other.

C H A P. XVI.

Of the Degrees of Assent.

THE *Grounds of Probability* laid down in the foregoing *Chapter*, as they are the foundations on which our *Assent* is built, so are they also the measure whereby its several *Degrees* are (or ought) to be regulated. Only we are to take notice, that no grounds of Probability operate any farther on the mind, which searches after Truth, and endeavours to judge right, than they appear; at least in the first Judgment, or Search that the mind makes. It is indeed in many cases impossible, and in most very hard, even for those who have admirable memories, to retain all the Proofs, which upon a due Examination, made them embrace that side of the question. It suffices that they have once with care and fairness, sifted the matter as far as they could; and having once found on which side the *Probability* appeared to them, they lay up the Conclusion in their memories, as a *Truth* they have discovered; and for the future remain satisfied with the Testimony of their memories, that this is the Opinion, that by the Proofs they have once seen of it, deserves such a *Degree* of their *Assent* as they afford it.

It is unavoidable then that the memory be relied on in this case, and that men be persuaded of several *Opinions*, whereof the Proofs are not actually in their thoughts, nay, which perhaps they are not able actually to recal : without this the greatest part of men, must be either *Scepticks*, or change every moment, when any one offers them arguments, which for want of memory, they are not presently able to answer.

It must be owned that mens sticking to past Judgments, is often the cause of great *Obstinacy* in Error and Mistake. But the fault is not, that they rely on their memories for what they have before well judged, but because they judged before they had well examined. Who almost is there that hath the Leisure, Patience, and Means to collect together, all the Proofs concerning most of the *Opinions* he has, so as safely to conclude that he has a clear and full view, and that there is no more to be alledged for his better Information ? And yet we are forced to determine our selves on one side or other : the conduct of our Lives, and the management of our great Concerns, will not bear Delay. For those depend for the most part on the determination of our Judgment in points wherein we are not capable of certain Knowledge, and wherein it is necessary for us to embrace one side or the other.

The Propositions we receive upon inducements

of *Probability*, are of *two sorts*: *First*, Concerning some particular Existence, or matter of *Fact*, which falling under Observation, is capable of *human Testimony*. *Secondly*, Concerning things, which being beyond the discovery of our *Senses*, are not capable of human Testimony.

Concerning the first of these, *viz. Particular matter of Fact*.

First, Where any particular thing, consonant to the constant Observation of our selves and others in the like case, comes attested with the concurrent Reports of all that mention it, we receive it as easily, and build as firmly upon it, as if it were certain Knowledge. Thus, if all *Englishmen* who have occasion to mention it, should report, that it *froze in England* last Winter, or the like, I think a man would as little doubt of it, as that *Seven and Four are Eleven*.

The *First*, and *highest* Degree of *Probability* then is, when the general consent of all men, in all ages, as far as can be known, concurs with a man's own constant Experience in the like cases, to confirm the truth of any particular matter of Fact, attested by fair Witnesses: such are the stated *Constitutions* and *Properties* of Bodies, and the regular Proceedings of *Causes* and *Effects* in the ordinary course of *Nature*; this we call an *Argument* from the nature of things themselves. For what we and others always observe to be after the same

manner, we conclude with Reason, to be the effects of steady and regular *Causes*, tho' they come not within the reach of our Knowledge. As that Fire warmed a man, or made *Lead fluid*; that *Iron* sunk in water, swam in quick-silver. A relation affirming any such thing to have been, or a praedication that it will happen again in the same manner, is received without doubt or hesitation: and our *Belief* thus grounded, rises to *Affurance*.

Secondly, The next degree of *Probability*, is when by my own Experience, and the agreement of all others that mention it, a *thing* is found to be for the most part so; and that the particular instance of it is attested by many and undoubted *witnesses*. Thus *History* giving us such an account of men in all ages, and my own Experience confirming it, that most men prefer their own private Advantage, to the Publick. If all Historians that writ of *Tiberius*, say that he did so, it is extreamly probable: and in this case, our *Affent* rises to a degree which we may call *Confidence*.

Thirdly, In matters happening indifferently, as that a *Bird* should fly this or that way: when any particular matter of Fact comes attested by the concurrent Testimony of unsuspected *Witnesses*, there our *Affent* is also unavoidable. Thus, that there is in *Italy* such a city as *Rome*; that about One thousand and seven hundred years ago, there lived such a man in it as *Julius Caesar*, &c.

A man can as little doubt of this, and the like, as he does of the Being and Actions of his own Acquaintance, whereof he himself is a witness.

Probability, on these grounds, carries so much Evidence with it, that it leaves us as little liberty to believe or disbelieve, as Demonstration does, whether we will know or be ignorant. But the difficulty is, when Testimonies contradict common Experience, and the Reports of Witnesses clash with the ordinary course of Nature, or with one another. Here diligence, attention, and exactness is required to form a *right Judgment*, and to proportion the *Assent* to the Evidence and *Probability* of the thing, which rises and falls, according as the two foundations of Credibility favour, or contradict it. These are liable to such variety of contrary Observations, Circumstances, Reports, Tempers, Designs, Oversights, &c. of Reporters, that it is impossible to reduce to precise rules, the various degrees wherein men give their *Assent*. This in general may be said, that as the *Proofs* upon due Examination, shall to any one appear in a greater, or less degree, to preponderate on either side, so they are fitted to produce in the mind, such different Entertainments, as are called *Belief*, *Conjecture*, *Guess*, *Doubt*, *Wavering*, *Distrust*, *Disbelief*, &c.

It is a *Rule* generally approved, that any Testimony, the farther off it is removed from the ori-

ginal truth, the less force it has : and in *traditional* truths, each remove weakens the force of the *Proof*. There is a *Rule* quite contrary to this, advanced by some men, who look on *Opinions* to gain force by growing *older*. Upon this ground, Propositions evidently false or doubtful in their first beginning, come by an inverted *Rule* of *Probability*, to pass for *authentick* Truths ; and those which deserved little Credit from the mouths of their first Relators, are thought to grow *venerable* by Age, and are urged as undeniable.

But certain it is, that no *Probability* can rise above its first *Original*. What has no other evidence than the single Testimony of *one Witness*, must stand or fall by his *only* Testimony, tho' afterwards cited by Hundreds of others ; and is so far from receiving any strength thereby, that it becomes the weaker. Because Passion, Interest, Inadvertency, Mistake of his Meaning, and a thousand odd Reasons, which capricious mens minds are acted by, may make one man quote another's words or meaning wrong. This is certain, that what in one age was affirmed upon slight grounds, can never after come to be more valid in future ages by being often repeated.

The Second sort of Probability, is concerning things not falling under the reach of our senses, and therefore not capable of Testimony : and such are,

First, The Existence, Nature, and Operations of *finite, immaterial* Beings without us, as *Spirits, Angels, &c.* or the Existence of *material* Beings, such as for their smallness or remoteness, our *Senses* cannot take notice of: as whether there be any *Plants, Animals, &c.* in the *Planets*, and other mansions of the vast Universe.

Secondly, Concerning the manner of Operation in most parts of the works of *Nature*; wherein, tho' we see the sensible *Effects*, yet their Causes are unknown, and we perceive not the ways, and manner how they are produced. We see *Animals* are generated, nourished, and move; the *Loadstone* draws *Iron, &c.* but the Causes that operate, and the manner they are produced in, we can only guess, and probably conjecture. In these matters *Analogy* is the only help we have; and it is from that alone we draw all our grounds of *Probability*. Thus observing, that the bare rubbing of two Bodies violently upon one another, produces *Heat* and very often *Fire*; we have reason to think that what we call *Heat* and *Fire*, consists, in a certain violent agitation of the imperceptible minute parts of the burning Matter. This sort of *Probability*, which is the best conduct of rational Experiments, and the rise of *Hypotheses*, has also its use and influence. And a wary reasoning from *Analogy* leads us often into the discovery of *Truths*, and useful *Deductions*, which would otherwise lie concealed.

Tho' the common experience, and the ordinary course of things, have a mighty influence on the minds of men, to make them give or refuse credit, to any thing proposed to their belief; yet there is one case wherein the strangeness of the fact lessens not the *Affent* to a fair Testimony given of it. For where such supernatural *Events* are suitable to ends aimed at by him, who has the power to change the course of Nature; there under such circumstances they may be the fitter to procure belief, by how much the more they are beyond, or contrary to ordinary observation. This is the proper case of *miracles*, which well attested, do not only find credit themselves, but give it also to other *truths*.

There are Propositions that challenge the highest degree of our *Affent* upon bare Testimony, whether the thing proposed agree or disagree with common Experience, and the ordinary course of things or no: the reason whereof is, because the Testimony is of such *an one*, as cannot deceive nor be deceived; and that is *God* himself. This carries with it Certainty beyond Doubt, Evidence beyond Exception. This is called by a peculiar name, *Revelation*, and our *assent* to it, *Faith*; which has as much Certainty in it, as our Knowledge it self; and we may as well doubt of our own *Being*, as we can, whether any *Revelation* from *God* be true. So that *Faith* is a settled and sure

Principle of *Assent* and *Assurance*, and leaves no Manner of Room for Doubt or Hesitation; only we must be sure, that it be a divine *Revelation*, and that we understand it right; else we shall expose our selves to all the extravagancy of *Enthusiasm*, and all the error of wrong Principles if we have *Faith* and *Assurance*, in what is not *divine Revelation*.

C H A P. XVII.

Of Reason.

THE word *Reason* in *English*, has different Significations. Sometimes it is taken for *true* and *clear Principles*: sometimes for *clear* and *fair Deductions* from those Principles: sometimes for the *Cause*, and particularly for the *final Cause*; but the Consideration I shall have of it here, is, as it stands for a *Faculty*, whereby *Man* is supposed to be distinguished from *Beasts*; and wherein it is evident, he much surpasses them.

Reason is necessary, both for the enlargement of our Knowledge, and regulating our Assent: for it hath to do both in Knowledge and Opinion, and is necessary and assisting to all our other intellectual Faculties; and indeed, contains *two* of them, *viz.* *First, Sagacity*, whereby it finds intermediate *ideas*. *Secondly, Illation*, whereby it so orders and disposes of them, as to discover what connexion there

is in each link of the Chain, whereby the extreams are held together, and thereby, as it were, to draw into view the Truth sought for ; which is that we call *Illation* or *Inference* : and consists in nothing, but the Perception of the Connection there is between the *ideas*, in each step of the Deduction, whereby the mind comes to see, either the certain agreement or disagreement of any two *ideas*, as in *Demonstration*, in which it arrives at Knowledge : or their probable Connexion, on which it gives or with-holds its *Assent*, as in *Opinion*.

Sense and *Intuition* reach but a little way : the greatest part of our Knowledge depends upon Deductions and intermediate *ideas*. In those cases where we must take Propositions for true, without being certain of their being so, we have need to find out, examine, and compare the grounds of their *Probability* : in both cases, the faculty which finds out the means, and rightly applies them to discover Certainty in the one, and Probability in the other, is that which we call *Reason*. So that in Reason we may consider these *four* Degrees ; *1st*, The discovering and finding out of Proofs. *2dly*, The regular and methodical Disposition of them, and laying them in such order, as their Connexion may be plainly perceived. *Thirdly*, The perceiving their Connexion. *4thly*, The making a right Conclusion.

There is one thing more which I shall desire to be

considered concerning *Reason*, and that is, whether *Syllogism*, as is generally thought, be the proper instrument of it; and the usefullest way of exercising this faculty. The Causes I have to doubt of it, are these.

First, Because *Syllogism* serves our *Reason* but in one only of the fore-mentioned parts of it, and that is to shew the Connexion of the Proofs of any one Instance, and no more: but in this it is of no great use, since the mind can perceive such Connexion, where it really is, as easily, nay, perhaps better without it. We may observe that there are many men that reason exceeding clear and rightly, who know not how to make a *Syllogism*: and I believe scarce any one makes *Syllogisms* in reasoning within himself. Indeed, sometimes they may serve to discover a fallacy, hid in a *rhetorical* Flourish; or by stripping an absurdity of the cover of Wit and good Language, shew it in its naked Deformity. But the Weakness or Fallacy of such a loose Discourse it shews, by the artificial form it is put into, only to those who have thoroughly studied *Mode* and *Figure*, and have so examined the many ways, that three Propositions may be put together, as to know which of them does certainly conclude right, and which not, and upon what grounds it is that they do so. But they who have not so far look'd into those forms, are not sure by virtue of *Syllogism* that the Conclusion cer-

tainly follows from the Premisses. The mind is not taught to reason by these *Rules*; it has a native faculty to perceive the Coherence or Incoherence of its *ideas*, and can range them right, without any such perplexing *Repetitions*.

And to shew the weakness of an argument, there needs no more but to strip it of the superfluous *ideas*, which blended and confounded with those on which the Inference depends, seem to shew a Connexion where there is none, or at least do hinder the Discovery of the want of it; and then to lay the naked *ideas* on which the force of the Argumentation depends in their due order; in which position the mind taking a view of them, sees what Connexion they have, and so is able to judge of the Inference without any need of Syllogism at all.

Secondly, Because Syllogisms are not less liable to Fallacies than the plainer ways of Argumentation: and for this I appeal to common Observation, which has always found these artificial methods of Reasoning more adapted to catch and entangle the mind, than to instruct and inform the Understanding. And if it be certain that Fallacy can be couch'd in Syllogisms, as it cannot be denied, it must be something else, and not Syllogism, that must discover them. But if men skill'd in, and us'd to Syllogisms, find them assisting to their Reason in the Discovery of Truth, I think they

ought to make use of them. All that I aim at is, that they should not ascribe more to these Forms than belongs to them; and think that men have no use, or not so full a use of their reasoning faculty without them.

But however it be in Knowledge, I think it is of far less, or no use at all in *Probabilities*: for the *Affent* there being to be determined by the Preponderancy, after a due weighing of all the Proofs on both sides, nothing is so unfit to assist the mind in that, as *Syllogism*; which running away with one assumed *Probability*, pursues that till it has led the mind quite out of sight of the thing under consideration.

But let it help us (as perhaps may be said) *in convincing men of their errors or mistakes*; yet still it fails our reason in that part, which if not its highest perfection, is yet certainly its hardest task; and that which we most need its help in, and that is, *The finding out of Proofs, and making new Discoveries*. This way of Reasoning discovers no new Proofs, but is the art of marshallling and ranging the old ones we have already. A man knows first, and then he is able to prove *syllogistically*; so that *Syllogism* comes after Knowledge; and then a man has little or no need of it. But it is chiefly by the finding out those *ideas* that shew the Connexion of distant ones, that our stock of Knowledge is encreased; and that useful arts and sciences are advanced.

Reason, tho' of a very large extent, fails us in several Instances: as, 1st, Where our *ideas* fail. 2^{dly}, It is often at a loss, because of the Obscurity, Confusion, or Imperfection of the *ideas* it is employed about. Thus having no perfect *idea* of the least Extension of *matter*, nor of *Infinity*, we are at a loss about the divisibility of *Matter*. 3^{dly}, Our *Reason* is often at a stand, because it perceives not those *ideas* which would serve to shew the certain or probable agreement or disagreement of any two other *ideas*. 4^{thly}, Our *Reason* is often engaged in absurdities and difficulties, by proceeding upon false Principles, which being followed, lead men into Contradictions to themselves, and Inconsistency in their own Thoughts. 5^{thly}, Dubious words, and uncertain signs often puzzle mens *Reason*, and bring them to a Non-plus.

Tho' the deducing one Proposition from another be a great part of Reason, and that which it is usually employed about: yet the principal act of Ratiocination is the finding the agreement or disagreement of two *ideas* one with another, by the intervention of a third. As a man, by a yard, finds two houses to be of the same length, which could not be brought together to measure their Equality by *juxta-position*. Words have their consequences as the signs of such *ideas*: and things agree, or disagree, as really they are; but we observe it only by our *ideas*.

In Reasoning men ordinarily use *four* sorts of *Arguments*.

The *First*, is to alledge the Opinions of men, whose parts, learning, eminency, power, or some other cause, has gained a name, and settled their Reputation in the common esteem with some kind of Authority. This may be called *Argumentum ad Verecundiam*.

Secondly, Another way is, to require the Adversary to admit what they alledge as a Proof, or to assign a better. This I call *Argumentum ad Ignorantiam*.

A *Third* way, is to press a man with consequences drawn from his own Principles or Concessions. This is already known under the name of *Argumentum ad hominem*.

Fourthly, The using of Proofs drawn from any of the foundations of Knowledge or Probability. This I call *Argumentum ad Judicium*. This alone of all the four, brings true Instruction with it, and advances us in our way to Knowledge. For *1st*, It argues not another man's Opinion to be right, because I, out of respect, or any other consideration but that of Conviction, will not contradict him. *2dly*, It proves not another man to be in the right way. nor that I ought to take the same with him, because I know not a better. *3dly*, Nor does it follow, that another man is in the right way, because he has shewn me that I am in the wrong.

This may dispose me perhaps for the Reception of truth, but helps me not to it; that must come from *Proofs* and *Arguments*, and Light arising from the Nature of Things themselves; not from my Shame-facedness, Ignorance, or Error.

By what has been said of *Reason*, we may be able to make some guess at the distinction of things, into those that are according to, above, and contrary to *Reason*. *According to Reason*, are such Propositions, whose truth we can discover, by examining and tracing those *ideas* we have from *Sensation* and *Reflection*, and by natural deduction find to be true or probable. *Above Reason*, are such Propositions, whose *Truth* or *Probability* we cannot by *Reason* derive from those Principles. *Contrary to Reason*, are such Propositions as are inconsistent with, or irreconcilable to, our clear and distinct *ideas*. Thus the *Existence of one God*, is according to *Reason*: the *Existence of more than one God*, contrary to *Reason*: the *Resurrection of the Body* after death, above *Reason*. *Above Reason*, may be also taken in a double sense, viz. *Above Probability*, or, *above Certainty*. In that large sense also, *Contrary to Reason*, is, I suppose, sometimes taken.

There is another use of the word *Reason*, wherein it is opposed to *Faith*; which, though authorized by common use, yet is it in it self a very improper way of speaking: for *Faith* is nothing but

a firm *Assent* of the mind ; which if it be regulated as is our duty, cannot be afforded to any thing but upon good *Reason*, and so cannot be opposite to it. He that believes without having any Reason for Believing, may be in love with his own fancies ; but neither seeks *Truth* as he ought, nor pays the Obedience due to his Maker, who would have him use those discerning faculties he has given him, to keep him out of Mistake and Error. But since *Reason* and *Faith* are by some men opposed, we will so consider them in the following *Chapter*.

C H A P. XVIII.

Of Faith and Reason, and their distinct Provinces.

REASON, as contra-distinguished to *Faith*, I take to be the discovery of the *Certainty* or *Probability* of such Propositions or Truths which the mind arrives at by deductions made from such *ideas*, which it has got by the use of its natural faculties, *viz.* by *Sensation* or *Reflection*.

Faith on the other side, is the assent to any proposition, upon the credit of the proposer, as coming immediately from *God* ; which we call *Revelation* : concerning which we must observe,

First, That *no man inspired by God, can by any Revelation communicate to others, any new simple ideas, which they had not before from Sensation or*

Reflection : because words, by their immediate operation on us, cannot cause other *ideas*, but of their natural sounds, and as *signs* of latent *ideas* they can only recal to our Thoughts those *ideas*, which to us they have been wont to be signs of; but cannot introduce any new, and formerly unknown *simple ideas*. The same holds in all other *signs*, which cannot signify to us things, of which we have never before had any *idea* at all. For our *simple ideas* we must depend wholly on our natural faculties, and can by no means receive them from *traditional Revelation*; I say *traditional*, in distinction to *original Revelation*. By the *one*, I mean that impression which is made immediately by *God* on the mind of any man, to which we cannot set any bounds. And by the *other*, those impressions delivered over to others in words, and the ordinary ways of conveying our Conceptions one to another.

Secondly, I say, that *the same Truths may be discovered by Revelation, which are discoverable to us by Reason*; but in such there is little need or use of *Revelation*; *God* having furnished us with natural means to arrive at the Knowledge of them: and Truths discovered by our natural faculties, are more certain, than when conveyed to us by *traditional Revelation*. For the Knowledge we have, that this *Revelation* came at first from *God*, can never be so sure as the Knowledge we have from the

clear and distinct Perception of the agreement and disagreement of our own *ideas*. This also holds in matters of fact, knowable by our senses: as the *history* of the *Deluge* is conveyed to us by Writings, which had their original from Revelation; and yet no body, I think, will say he has as certain and clear Knowledge of the *Flood*, as *Noah* that saw it, or that he himself would have had, had he then been alive and seen it. For he has no greater Assurance, than that of his *Senses*, that it is writ in the Book, supposed to be writ by *Moses* inspired. But he has not so great an Assurance that *Moses* writ that Book, as if he had seen *Moses* write it; so that the Assurance of its being a *Revelation*, is still less than the Assurance of his *Senses*.

Revelation cannot be admitted against the clear evidence of *Reason*. For since no evidence of our faculties, by which we receive such a *Revelation*, can exceed, if equal, the Certainty of our *intuitive* Knowledge; we can never receive for a Truth any thing that is directly contrary to our clear and distinct Knowledge. Thus the *ideas* of *one body* and *one place* do so clearly agree, that we can never assent to a Proposition that affirms *the same body to be in two distinct places at once*; however, it should pretend to the authority of a *divine Revelation*: since the evidence, *First*, That we deceive not our selves in ascribing it to *God*: *Secondly*, That we

understand it right, can never be so great as the evidence of our own *intuitive* Knowledge, whereby we discern it impossible for *the same body to be in two places at once.*

In Propositions therefore, contrary to our distinct and clear *ideas*, it will be in vain to urge them as matters of *Faith*. For *Faith* can never convince us of any thing that contradicts our Knowledge. Because, though Faith be founded upon the Testimony of *God*, who cannot lie, yet we cannot have an Assurance of the Truth of its being a *divine Revelation*, greater than our own Knowledge. For if the mind of man can never have a clearer evidence of any thing to be a *divine Revelation*, than it has of the principles of its own Reason; it can never have a ground to quit the clear evidence of its Reason, to give place to a Proposition, whose *Revelation* has not a greater evidence than those principles have.

In all things therefore where we have clear evidence from our *ideas*, and the principles of Knowledge above-mentioned, *Reason* is the proper Judge; and *Revelation* cannot in such cases invalidate its decrees; nor can we be obliged, where we have the clear and evident sentence of Reason, to quit it for the contrary Opinion, under a pretence that it is *Matter of Faith*, which can have no authority against the plain and clear dictates of *Reason*. But,

Thirdly, There being many things of which we have but imperfect notions, or none at all; and other things, of whose past, present, or future Existence, by the natural use of our faculties, we can have no Knowledge at all: these being beyond the *discovery of our faculties, and above Reason*, when revealed, become the *proper Matter of Faith*. Thus, that part of the angels rebelled against *God*; that the bodies of men shall rise and live again, and the like, are purely Matters of *Faith*, with which *Reason* has directly nothing to do.

First then, Whatever Proposition is revealed, of whose truth our mind, by its natural faculties and notions cannot judge, that is purely *Matter of Faith* and *above Reason*.

Secondly, All Propositions, whereof the mind by its natural faculties, can come to determine and judge from natural acquired *ideas*, are *Matter of Reason*; but with this difference; that in those concerning which it has but an uncertain evidence, and so is persuaded of their Truth only upon probable grounds: in such, I say, an *evident Revelation* ought to determine our *Assent*, even against *Probability*. Because the mind, not being certain of the Truth of that it does not evidently know, is bound to give up its *Assent* to such a Testimony, which it is satisfied comes from one, who cannot err, and will not deceive. But yet it still belongs to *Reason* to judge of the Truth of its being a *Re-*

velation, and of the Signification of the Words wherein it is delivered.

Thus far the dominion of *Faith* reaches; and that without any violence to *Reason*, which is not injured or disturbed, but assisted and improved by new discoveries of Truth, coming from the *eternal Fountain* of all Knowledge. Whatever *God* hath revealed is certainly true; no doubt can be made of it. This is the proper Object of *Faith*: but whether it be a divine *Revelation* or no, *Reason* must judge; which can never permit the mind to reject a greater Evidence, to embrace what is less evident, nor prefer less Certainty to the greater. There can be no Evidence, that any traditional *Revelation* is of divine original, in the words we receive it, and the sense we understand it, so clear and so certain, as that of the Principles of *Reason*: and therefore, *Nothing that is contrary to the clear and self-evident dictates of Reason, has a right to be urged or assented to, as a matter of Faith, wherein Reason has nothing to do.* Whatsoever is divine *Revelation*, ought to over-rule all our Opinions, Prejudices, and Interests, and hath a right to be received with a full *Assent*. Such a submission as this, of our Reason to Faith, takes not away, the Land-marks of Knowledge: this shakes not the foundations of Reason, but leaves us that use of our faculties, for which they were given us.

C H A P. XIX.

Of Enthusiasm.

HE that would seriously set upon the search of Truth, ought in the first place to prepare his mind with a Love of it. For he that loves it not, will not take much pains to get it, nor be much concern'd when he misses it. There is no body who does not profess himself a lover of truth, and that would not take it amiss to be thought otherwise of. And yet for all this, one may truly say, there are very few lovers of truth for Truth's sake, even amongst those who persuade themselves that they are so. How a man may know whether he be so in earnest, is worth Enquiry : and I think there is this one unerring mark of it, *viz.* The not entertaining any Proposition with greater assurance than the proofs it is built upon will warrant. Whoever goes beyond this measure of Assent, 'tis plain receives not Truth in the Love of it. For the evidence that any Proposition is true (except such as are self-evident) lying only in the proofs a man has of it, whatever degrees of Assent he affords it beyond the degrees of that Evidence, 'tis plain all that surplussage of Assurance is owing to some other affection, and not to the love of

Truth. Whatsoever credit we give to any Proposition more than it receives from the principles and proofs it supports it self upon, is owing to our inclinations that way, and is so far a derogation from the Love of Truth as such : which as it can receive no evidence from our Passions or Interests, so it should receive no tincture from them.

The assuming an Authority of dictating to others, and a Forwardness to prescribe to their opinions, is a constant concomitant of this bias and corruption of our Judgments. For how can it be otherwise, but that he should be ready to impose on others Belief, who has already impos'd on his own?

Upon this occasion I shall consider a third ground of Assent, which with some men has the same Authority as either Faith or Reason, I mean *Enthusiasm*; which laying by Reason, would set up Revelation without it. Whereby in effect it takes away both Reason and Revelation, and substitutes in the room of it, the ungrounded fancies of a man's own brain, and assumes them for a foundation both of Opinion and Conduct.

Immediate Revelation being a much easier way for men to establish their Opinions, and regulate their Conduct, than the tedious labour of strict Reasoning, it is no wonder that some have been very apt to pretend to it, especially in such of their Actions and Opinions as they cannot ac-

count for by the ordinary methods of Knowledge, and principles of Reason. Hence we see that in all ages, men, in whom Melancholy has mixed with Devotion, or whose Conceit of themselves has raised them into an Opinion of a greater familiarity with God than is allowed others, have often flatter'd themselves with a persuasion of an immediate Intercourse with the Deity, and frequent Communications from the divine Spirit. Their minds being thus prepared, whatever groundless Opinion comes to settle itself strongly upon their fancies, is an Illumination from the Spirit of God; and whatsoever odd action they find in themselves a strong Inclination to do, that Impulse is concluded to be a Call or Direction from Heaven, and must be obeyed. This I take to be properly *Enthusiasm*, which tho' rising from the Conceit of a warmed or overweening Brain, works, where it once gets footing, more powerfully on the persuasions and actions of men, than either Reason or Revelation, or both together; men being most forwardly obedient to the Impulses they receive from themselves. Strong Conceit, like a new Principle, carries all easily with it, when got above Common Sense, and freed from all restraint of Reason, and check of Reflection, it is heighten'd into a divine Authority, in concurrence with our own Temper and Inclination.

When men are once got into this way of imme-

mediate Revelation, of Illumination without Search, and of Certainty without Proof, 'tis a hard matter to get them out of it. Reason is lost upon them, they are above it : they see the *Light* infus'd into their Understandings, and cannot be mistaken ; 'tis clear and visible there, like the light of bright Sun-shine, shews it self, and needs no other Proof, but its own Evidence : they *feel* the hand of God moving them within, and the Impulses of the Spirit, and cannot be mistaken in what they feel.

This is the way of talking of these men : they are sure because they are sure : and their persuasions are *right*, only because they are *strong* in them. For when what they say is strip'd of the metaphor of seeing and feeling, this is all it amounts to. These men have, they say, clear light, and they see ; they have an awaken'd sense, and they feel : this cannot, they are sure, be disputed them. But here let me ask : this *seeing* is it the perception of the Truth of the Proposition, or of this, that it is a Revelation from God ? This *feeling* is it a Perception of an Inclination to do something, or of the Spirit of God moving that Inclination ? These are two very different Perceptions, and must be carefully distinguish'd. I may perceive the Truth of a Proposition, and yet not perceive that it is an immediate Revelation from God. Nay, I may perceive I came not by it in a natural way,

without perceiving that it is a Revelation from God. Because there be *Spirits*, which without being divinely commission'd, may excite those *ideas* in me, and make their Connexion perceiv'd. So that the Knowledge of any Proposition coming into my mind I know not how, is not a Perception that it is from God. But however it be call'd Light and Seeing; I suppose it is at most but Belief and Assurance. For where a Proposition is known to be true, Revelation is needless. If therefore it be a Proposition which they are persuaded, but do not know to be true, it is not seeing but believing. What I see, I know to be so by the Evidence of the thing it self: what I believe, I take to be so upon the Testimony of another: but this Testimony I must know to be given, or else what ground have I of believing? I must see that it is God that reveals this to me, or else I see nothing. If I know not this, how great soever my Assurance is, it is groundless: whatever Light I pretend to, it is but *Enthusiasm*.

In all that is of divine Revelation, there is need of no other Proof, but that it is from God: for he can neither deceive nor be deceived. But how shall it be known that any Proposition in our minds is a Truth revealed to us by God? Here it is that *Enthusiasm* fails of the Evidence it pretends to. For men thus possess'd boast of a Light, whereby they say they are brought into the Knowledge of

this or that Truth. But if they know it to be a Truth, they must know it to be so, either by its own self-evidence or by the rational Proofs that make it out to be so. If they know it to be a Truth either of these two ways, they in vain suppose it to be a Revelation. For thus all Truths of what kind soever, that men uninspired are enlighten'd with come into their minds. If they say they know it to be true, because it is a Revelation from God, the Reason is good: but then it will be demanded, how they know it to be a Revelation from God. If they say by the Light it brings with it, I beseech them to consider, whether this be any more, than that it is a Revelation because they strongly believe it to be true. For all the Light they speak of, is but a strong persuasion of their own minds that it is a Truth, which is a very unsafe ground to proceed on, either in our tenets or actions.

True Light in the mind is nothing else but the *Evidence* of the Truth of any Proposition: and if it be not self-evident, all the Light it can have is from Clearness of those Proofs upon which it is received. To talk of any other Light in the Understanding, is to put ourselves in the dark, or in the power of the Prince of Darkeness. For if strength of persuasion be the Light which must guide us, how shall any one distinguish between the Delusions of *Satan*, and the Inspirations of the *Holy*

Ghost? He therefore that will not give up himself to Delusion and Error, must bring this guide of his *Light within* to the trial. God when he makes the Prophet, does not unmake the Man. He leaves his faculties in their natural state, to enable him to judge of his Inspirations, whether they be of divine Original or no. If he would have us assent to the Truth of any Proposition, he either evidences that Truth by the usual methods of natural Reason, or else makes it known to be a Truth which he would have us assent to by his Authority; and convinces us that it is from him, by some marks, which Reason cannot be mistaken in. Reason must be our last Judge and Guide in every thing. I do not mean that we must consult Reason, and examine whether a Proposition reveal'd from God can be made out by natural Principles, and if it cannot, that then we may reject it: but consult it we must, and by it examine, whether it be a Revelation from God or no: and if Reason finds it to be revealed from God, Reason then declares for it, as much as for any other Truth, and makes it one of her Dictates. Every conceit that thoroughly warms our fancies must pass for an Inspiration, if there be nothing but the strength of our persuasions whereby to judge of them: if Reason must not examine their Truth by something extrinsical to the persuasions themselves, Inspirations and Delusions, Truth and

Falshood, will have the same measure, and will not be possible to be distinguished.

Thus we see the holy men of God, who had Revelations from God, had something else besides that internal Light of Assurance in their own minds, to testify to them, that it was from God. They had outward signs to convince them of the Author of those Revelations. And when they were to convince others, they had a power given them to justify the truth of their Commission from Heaven; and by visible signs to assert the divine Authority of the message they were sent with. *Moses* saw the Bush burn without being consumed, and heard a voice out of it. God by another miracle of his rod turn'd into a Serpent, assured him likewise of a power to testify his mission by the same Miracle repeated before them, to whom he was sent. This, and the like Instances to be found among the Prophets of old, are enough to shew, that they thought not an inward seeing or persuasion of their own minds a sufficient Evidence without any other proof, that it was from God, tho' the *Scripture* does not every where mention their demanding or having such proofs.

I do not deny that God can, or doth sometimes enlighten mens minds in the apprehending of certain Truths, or excite them to good actions by the immediate influence and assistance of the Holy Spirit, without any extraordinary signs accompanying it.

But in such cases too we have Reason and the Scripture, unerring rules to know whether it be from God or no. Where the Truth embraced is consonant to the Revelation in the written Word of God; or the Action conformable to the Dictates of Right Reason, or Holy Writ, we run no risque in entertaining it as such; because tho' perhaps it be not an immediate Revelation from God, extraordinarily operating on our minds, yet we are sure it is warranted by that Revelation which he has given us of Truth. Where Reason or Scripture is exprefs for any Opinion or Action, we may receive it as of divine Authority: but 'tis not the strength of our own persuasions which can by itself give it that stamp. The bent of our own minds may favour it as much as we please; that may shew it to be a fondling of our own, but will by no means prove it to be an *Offspring* of Heaven, and of divine Original.

C H A P. XX.

Of wrong Assent or Error.

ERROR is a Mistake of our Judgment, giving *Assent* to that which is not true. The Reasons whereof may be reduced to these *four*: First, *Want of Proofs*. Secondly, *Want of Ability to use them*. Thirdly, *Want of Will to use them*. Fourthly, *Wrong Measures of Probability*.

First, Want of Proofs; by which I do not mean only the want of those Proofs which are not to be had, but also of those Proofs which are in being, or might be procured. The greatest part of mankind want the conveniencies and opportunities of making Experiments and Observations themselves, or of collecting the Testimonies of others, being enslaved to the necessity of their mean Condition, whose lives are worn out only in the Provisions for living. These men are by the Constitution of human Affairs, unavoidably given over to invincible Ignorance of those Proofs, on which others build, and which are necessary to establish those Opinions. For having much to do to get the means of living, they are not in a Condition

to look after those of learned and laborious Enquiries.

It is true, that *God* has furnished men with faculties sufficient to direct them in the way they should take, if they will but seriously employ them that way, when their ordinary vocations allow them leisure. No man is so wholly taken up with the attendance on the means of living, as to have no spare time at all to think on his *Soul*, and inform himself in matters of Religion, were men as intent on this, as they are on things of lower concernment. There are none so enslaved to the necessity of life, who might not find many vacancies, that might be husbanded to this advantage of their Knowledge.

Secondly, Want of *Ability* to use them. There be many who cannot carry a Train of Consequences in their heads, nor weigh exactly the preponderancy of contrary Proofs and Testimonies. These cannot discern that side on which the strongest Proofs lie; nor follow that which in it self is the most probable Opinion. It is certain, that there is a wide difference in mens Understandings, Apprehensions and Reasonings, to a very great Latitude, so that one may, without doing Injury to mankind, affirm, that there is a greater distance between some *men* and *others* in this respect, than between some *men* and some *beasts*: but how this comes about is a Speculation, though of

great Consequence, yet not necessary to our present Purpose.

Thirdly, For want of *Will* to use them. Some, tho' they have opportunities and leisure enough, and want neither parts nor learning, nor other helps, are yet never the better for them, and never come to the Knowledge of several Truths that lie within their reach; either upon the account of their hot pursuit of Pleasure, constant drudgery in Business, Laziness and Ofsitancy in general, or a particular aversion for Books and Study: and some out of fear that an impartial Inquiry would not favour those Opinions, which best suit their Prejudices, Lives, Designs, Interests, &c. as many men forbear to cast up their Accounts, who have reason to fear that their Affairs are in no very good Posture.

How men, whose plentiful fortunes allow them leisure to improve their Understandings, can satisfy themselves with a lazy Ignorance, I cannot tell: but methinks they have a low Opinion of their *Souls*, who lay out all their Incomes in Provisions for the Body, and employ none of it to procure the Means and Helps of Knowledge. I will not here mention how unreasonable this is for men that ever think of a future State, and their Concernment in it, which no rational man can avoid to do sometimes: nor shall I take notice what a shame it is to the greatest Contemners of Know-

ledge, to be found ignorant in things they are concerned to know. But this, at least, is worth the Consideration of those who call themselves *Gentlemen*; that however they may think Credit, Respect, and Authority, the concomitants of their Birth and Fortune; yet they will find all these still carried away from them by men of lower Condition, who surpass them in Knowledge. They who are blind, will always be led by those that see, or else fall into the Ditch: and he is certainly the most subjected, the most enslaved, who is so in his Understanding.

Fourthly, Wrong measures of *Probability*; which are,

First, *Propositions that are not in themselves certain and evident, but doubtful and false, taken for Principles*. Propositions looked on as Principles, have so great an Influence upon our Opinions, that is usually by them we judge of Truth, and what is inconsistent with them, is so far from passing for *probable* with us, that it will not be allowed *possible*. The Reverence born to these Principles is so great, that the Testimony, not only of other men, but the Evidence of our own Senses are often rejected, when they offer to vouch any thing contrary to these established Rules. The great Obstinacy that is to be found in men, firmly believing quite contrary Opinions, though many times equally absurd, in the various Religions of man-

kind, are as evident a proof, as they are an unavoidable consequence of this way of Reasoning from received traditional principles : so that men will disbelieve their own eyes, renounce the Evidence of their Senses, and give their own Experience the Lye, rather than admit of any thing disagreeing with these sacred Tenets.

Secondly, *Received Hypotheses*. The difference between these and the former, is, that those who proceed by these, will admit of matter of fact, and agree with Dissenters in that ; but differ in assigning of Reasons, and explaining the manner of Operation. These are not at that open defiance with their *Senses* as the former : they can endure to hearken to their Information a little more patiently ; but will by no means admit of their Reports in the Explanation of things ; nor be prevailed on by *Probabilities* which would convince them, that things are not brought about just after the same manner that they have decreed within themselves that they are.

Thirdly, *Predominant Passions or Inclinations* : let never so much *Probability* hang on one side of a *covetous* man's Reasoning, and *money* on the other, it is easie to foresee which will prevail. Tho' men cannot always openly gain-say, or resist the force of manifest *Probabilities*, that make against them, yet yield they not to the Argument. Not

but that it is the Nature of the Understanding, constantly to close with the more probable side: but yet a man hath power to suspend and restrain its Enquiries, and not permit a full and satisfactory Examination. Until that be done, there will be always these *two ways* left of evading the most apparent *Probabilities*.

First, That the Arguments being brought in *Words*, there may be *Fallacy* latent in them; and the consequences being perhaps many in train, may be some of them incoherent. There are few discourses so short and clear, to which men may not, with satisfaction enough to themselves raise this doubt, and from whose Conviction they may not without reproach of Disingenuity or Unreasonableness set themselves free.

Secondly, Manifest *Probabilities* may be evaded upon this Suggestion, that *I know not yet all that may be said on the contrary side*: and therefore, tho' a man be beaten, it is not necessary he should yield, not knowing what Forces there are in reserve behind.

Fourthly, *Authority*, or the *giving up our Assent to the common receiv'd Opinions*, either of our Friends or Party, Neighbourhood or Country. How many men have no other ground for their Tenets, than the supposed Honesty or Learning, or Number of those of the same Profession? as if

honest or bookish men could not err ; or Truth were to be established by the Vote of the Multitude. Yet this with most men serves the Turn. All men are liable to Error, and most men are in many points by *Passion* or *Interest* under temptation to it. This is certain, that there is not an Opinion so absurd, which a man may not receive upon this Ground. There is no Error to be named, which has not had its Professors. And a man shall never want crooked Paths to walk in, if he thinks that he is in the right Way, where-ever he has the Footsteps of others to follow. But, notwithstanding the great Noise is made in the World about Errors and Opinions, I must do Mankind that Right as to say, there are not *so many men in Errors and wrong Opinions as is commonly supposed*: not that I think they embrace the Truth, but indeed, because, concerning those Doctrines they keep such a Stir about, they have *no Thought, no Opinion at all*. For if any one should a little catechise the greatest part of the *Partisans* of most of the Sects in the World, he would not find concerning those Matters, they are so zealous for, that they have any Opinions of their own : much less would he have Reason to think, that they took them upon the Examination of Arguments, and Appearance of Probability. They are resolved to stick to a Party, that Education or Interest

has engaged them in ; and there, like the common Soldiers of an Army, shew their Courage and Warmth, as their Leaders direct, without ever examining, or so much as knowing the Cause they contend for.

C H A P. XXI.

Of the Division of the Sciences.

ALL that can fall within the compass of Human Understanding, being either, 1st, The Nature of Things, their Relations, and their Manner of Operation: Or, 2^{dly}, That which *Man* himself ought to do as a rational and voluntary Agent, for the attainment of any End, especially *Happiness*: Or, 3^{dly}, The Ways and Means whereby the Knowledge of both of these are attained and communicated. I think *Science* may be properly divided into these *three Sorts*.

First, The Knowledge of Things, their Constitutions, Properties, and Operations, whether material or immaterial: this, in a little more enlarged sense of the Word, I call *Φυσική*, or *Natural Philosophy*. The End of this is bare *speculative Truth*, and whatsoever can afford the mind of man any such, falls under this Branch: whether it be God

himself. *Angels, Spirits, Bodies*, or any of their *Affections*, as *Number, Figure, &c.*

Secondly, Πραξις, the Skill of right-applying our own Powers and Actions for the attainment of things good and useful. The most considerable under this head, is *Ethicks*, which is the seeking out those Rules and Measures of humane Actions, which lead to *Happiness*, and the Means to practise them. The End of this is not bare *Speculation*; but *Right*, and a Conduct suitable thereto.

Thirdly, Σημειωσις, or the *Doctrine of Signs*: the most usual being *Words*, it is aptly enough term'd *Logick*: the business whereof is to consider the Nature of *Signs*, which the mind makes use of for the understanding of things, or conveying its Knowledge to others. Things are represented to the mind by *ideas*: and mens *ideas* are communicated to one another, by *articulate Sounds*, or *Words*. The Consideration then of *ideas* and words, as the great Instruments of Knowledge makes no despicable part of their Contemplation, who would take a view of human Knowledge in the whole Extent of it.

This seems to me the *first and most general, as well as natural Division* of the Objects of our Understanding. For a man can employ his thoughts about nothing, but either the Contemplation of *Things* themselves for the Discovery of Truth,

or about the *Things* in his own power, which are his *Actions*, for the attainment of his own Ends; or the *Signs* the mind makes use of, both in the one and the other, and the right ordering of them, for its clearer Information. All which *Three, viz. Things*, as they are in themselves Knowable: *Actions*, as they depend on us in order to Happiness, and the right use of *Signs*, in order to Knowledge, being *Toto Coelo* different, they seemed to me to be the three great Provinces of the *intellectual* World wholly separate, and distinct one from another.

T H E E N D.

The CONTENTS of the Second Book.

THE INTRODUCTION. Page 7

Chap. 1. Of Ideas in General, and their Original.	12
Chap. 2. Of Simple Ideas.	16
Chap. 3. Of Ideas of one Sense.	17
Chap. 4. Of Solidity.	18
Chap. 5. Of Simple Ideas of divers Senses.	21
Chap. 6. Of Simple Ideas of Reflection.	ib.
Chap. 7. Of Simple Ideas of Sensation and Reflection.	ib.
Chap. 8. Some farther Considerations concerning Simple Ideas.	25
Chap. 9. Of Perception.	30
Chap. 10. Of Retention.	33
Chap. 11. Of Discerning, and other Operations of the Mind.	35
Chap. 12. Of Complex Ideas.	38
Chap. 13. Of Simple Modes, and first of the Simple Modes of Space.	40
Chap. 14. Of Duration and its Simple Modes.	43
Chap. 15. Of Duration and Expansion considered to- gether.	47
Chap. 16. Of Numbers.	48
Chap. 17. Of Infinity.	50
Chap. 18. Of other simple Modes.	53
Chap. 19. Of the Modes of Thinking.	54
Chap. 20. Of the Modes of Pleasure and Pain.	55
Chap. 21. Of Power.	57
Chap. 22. Of Mixed Modes.	63
Chap. 23. Of our Complex Ideas of Substances.	67
Chap. 24. Of Collective Ideas of Substances.	72
Chap. 25. Of Relation.	73
Chap. 26. Of Cause and Effect, and of our Relations.	74
Chap. 27. Of Identity and Diversity.	77
Chap. 28. Of other Relations.	83
Chap. 29. Of clear, obscure, distinct, and confused Ideas.	89
Chap. 30. Of Real and Fantastical Ideas.	93
Chap. 31. Of Ideas Adequate or Inadequate.	95
Chap. 32. Of True and False Ideas.	97
Chap. 33. Of the Association of Ideas.	102

The CONTENTS of the Third Book.

Chap. 1. Of Words or Language in General.	p. 108
Chap. 2. Of the Signification of Words.	110
Chap. 3. Of General Terms.	114
Chap. 4. Of the Names of Simple Ideas.	121
Chap. 5. Of the Names of Mixed Modes and Relations.	124
Chap. 6. Of the Names of Substances.	127
Chap. 7. Of Particles.	134
Chap. 8. Of Abstract and Concrete Terms.	136
Chap. 9. Of the Imperfection of Words.	137
Chap. 10. Of the Abuse of Words.	141
Chap. 11. Of the Remedies of the foregoing Imperfections and Abuses.	150

The CONTENTS of the Fourth Book.

Chap. 1. Of Knowledge in General.	155
Chap. 2. Of the Degrees of our Knowledge.	159
Chap. 3. Of the Extent of Human Knowledge.	166
Chap. 4. Of the Reality of our Knowledge.	181
Chap. 5. Of Truth in General.	187
Chap. 6. Of Universal Propositions, their Truth and Certainty.	190
Chap. 7. Of Maxims.	194
Chap. 8. Of trifling Propositions.	201
Chap. 9. Of our Knowledge of Existence.	204
Chap. 10. Of our Knowledge of the Existence of a God.	205
Chap. 11. Of our Knowledge of the Existence of other Things.	211
Chap. 12. Of the Improvement of our Knowledge.	218
Chap. 13. Some farther Considerations concerning Knowledge.	225
Chap. 14. Of Judgment.	226
Chap. 15. Of Probability.	228
Chap. 16. Of the Degrees of Assent.	230
Chap. 17. Of Reason.	238
Chap. 18. Of Faith and Reason, and their distinct Provinces.	246
Chap. 19. Of Enthusiasm.	252
Chap. 20. Of wrong Assent or Error.	261
Chap. 21. Of the Division of the Sciences.	268









